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ABSTRACT

A consensus that unions must develop coherent and comprehensive policies on new work systems and continuous learning in order to guide local activities, was the central theme of this conference on the interrelated issues of the high performance work organization. These proceedings include the following presentations: "Labor's Stake in High Performance Work Organization" (Kistler, McMillan); "Key Elements of High Performance Work and Learning Systems" (Marshall); "Remarks on AFL-CIO Policy Priorities and Introduction of Luncheon Speaker" (Oswald); "One International Union's Approach to Skill Training and Continuous Learning" (Sweeney); "Advancing Work-Based Learning: U.S. Department of Labor Perspective" (Van Erden); "Making the Connection: New Technology, Work Organization and Skills" (Appelbaum); "Unions: The Key to Worker Empowerment" (Roberts); "A Participatory Perspective on Technology and Work Redesign" (Haddad); "Preparing for the Future through Apprenticeship" (Robertson); "The Role of Labor Leadership in Workplace and Education Reform" (Cole); "Cultivating a Suitable Environment for Workplace Restructuring" (Sarmiento); and "Where Do We Go from Here? An Agenda for Organized Labor" (Murry). An epilogue summarizes the small group discussion. Four appendices are included: information about the presenters, selected bibliography (32 references), conference participants, and the eight key elements of high performance work and learning systems. (NLA)

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High Performance Work and Learning Systems

Crafting a Worker-Centered Approach

Proceedings of a September 1991
Conference Sponsored by the
AFL-CIO Human Resources Development
Institute

Daniel Marschall, Editor

March 1992

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HIGH PERFORMANCE WORK AND LEARNING SYSTEMS:
CRAFTING A WORKER-CENTERED APPROACH

CONTENTS

Preface

1. Labor's Stake in High Performance Work Organization	1
<i>Alan Kistler and Michael G. McMillan</i>	
2. Key Elements of High Performance Work and Learning Systems	3
<i>Dr. Ray Marshall</i>	
3. Remarks on AFL-CIO Policy Priorities and Introduction of Luncheon Speaker	15
<i>Rudy Oswald</i>	
4. One International Union's Approach to Skill Training and Continuous Learning	17
<i>John J. Sweeney</i>	
5. Advancing Work-Based Learning: U.S. Department of Labor Perspective	21
<i>James Van Erden</i>	
6. Making the Connection: New Technology, Work Organization and Skills	25
<i>Eileen Appelbaum</i>	
7. Unions: The Key to Worker Empowerment	37
<i>Markley Roberts</i>	
8. A Participatory Perspective on Technology and Work Redesign	41
<i>Dr. Carol J. Haddad</i>	
9. Preparing for the Future Through Apprenticeship	45
<i>Raymond J. Robertson</i>	
10. The Role of Labor Leadership in Workplace and Education Reform	49
<i>Paul F. Cole</i>	
11. Cultivating a Suitable Environment for Workplace Restructuring	57
<i>Anthony Sarmiento</i>	
12. Where Do We Go From Here? An Agenda For Organized Labor	63
<i>James Murry</i>	
Epilogue: Acknowledgments and Insights of Small Group Discussions	65
Appendices:	
A. About the Authors	
B. Selected Bibliography	
C. Conference Participants	
D. The Eight Key Elements of High Performance Work and Learning Systems	

Preface

Workplaces around the globe are in turmoil. For several decades employers and unions in the United States have struggled to adjust to a rapidly-shifting competitive environment and vast demographic changes in the composition of the workforce. In the 1970s many companies adopted "quality of work life" programs in an attempt to boost productivity and increase job satisfaction. The 1980s were characterized by a distinct industrial relations split, with some employers experimenting with greater teamwork and employee involvement, while others worked to crush their existing unions or avoid unionization altogether. Out of this recent history has emerged sophisticated and effective models of cooperative programs that attempt to meld "high performance work organization" with continuous work-based learning. The decade of the 1990s may determine whether such new work systems take root in the American workplace or wither on the vine.

While some high-profile employers and numerous academic experts touted flexibility and new production methods, labor unions generally remained skeptical of the wholesale reorganization of work. It remained to be seen, many union leaders reasonably figured, whether managers were really serious about giving more power and discretion to workers -- much less including unions in major corporate decisions. In many cases, unions maintained an arms-length distance from the implementation of new work systems, preferring to react to company initiatives rather than commit the union prematurely to a new venture and potentially undermine the interests of their members.

Drawing upon years of practical experience, unions are seeking greater involvement in new work systems and skill training programs, seeing these activities as a natural extension of their responsibilities as worker representatives. Union leaders recognize that employers are determined to restructure the way that work is performed, both in service and manufacturing industries, and that members will be affected in a myriad of ways, positive and negative. Unions are taking a proactive approach towards these initiatives, determined to influence exactly how such systems are planned, implemented and evaluated. Joint training trusts, funded through cents-per-hour contributions established through collective bargaining, have provided services to millions of union members. In this context there is a growing consensus that unions must develop coherent and comprehensive policies on new work systems and continuous learning in order to guide local activities.

This emerging union consensus was the central theme of a September 1991 Conference on High Performance Work and Learning Systems, sponsored by the Human Resources Development Institute (HRDI), the employment and training arm of the AFL-CIO. Over a day and a half, more than 100 union officers, labor educators, government officials, local trade unionists, researchers and program operators gathered in Washington, D.C., to discuss the interrelated issues of "high performance work organization," ongoing skill formation,

and the role of advanced technology. This was the first time that an organization affiliated with the AFL-CIO had convened an event on topics related to work reorganization. Its central purpose, recognizing the great diversity of opinion and perspectives among unions in different industries, was to promote dialogue and explore areas of agreement. This publication provides a detailed record of the event.

In their introductory remarks (Chapter 1), HRDI President Alan Kistler and Executive Director Mike McMillan described the gap between "rhetoric and reality," with far too many employers continuing to cling to authoritarian management methods while talking about empowerment. The flourishing of joint training trusts, they explained, indicates that the collective bargaining process remains a flexible and effective vehicle for the implementation of new work systems -- if employers are serious about union involvement and worker participation.

Conference attendees then heard former U.S. Secretary of Labor Ray Marshall identify the eight key elements essential to become what he called a "high wage, full employment country with equity and justice." (See Chapter 2 and Appendix D.) The United States is pursuing a low wage strategy, he said, that will doom our nation to steady economic decline and wrenching division between social groups. Turning around the situation requires managers to abandon the outmoded tenets of Taylorism; devote significant resources to continuous learning systems; and embrace a perspective that recognizes the legitimate and valuable role played by unions in the contemporary workplace. Too many proponents of new work systems, he concluded, fail to understand that workers must have an "independent source of power" in the form of democratic trade unions to maximize the contribution of workers to the never-ending process of workplace transformation.

The luncheon speaker brought the entire discussion to "where the rubber meets the road," talking about his union's substantial experience with joint skill training programs. Service Employees International Union (SEIU) President John J. Sweeney (Chapter 4) reiterated the union's long-standing commitment to the welfare of low wage employees, helping them advance up career ladders in janitorial jobs and the health care industry, among other areas of the service economy. He described how SEIU Local 6 in Seattle had worked with HRDI to implement joint training programs for medical assistants and transcriptionists, drawing upon workers' "boundless desire, determination and vigor to improve themselves." As a member of the National Advisory Commission on Work-Based Learning, Sweeney is a strong advocate of concerted federal government action to foster all manner of skill training and upgrading programs.

Rudy Oswald, Director of the AFL-CIO Economic Research Department, introduced the luncheon speaker and linked the broad policy priorities of the AFL-CIO to local initiatives. (See Chapter 3.) Economic conversion, the impact of trade agreements, and the recession all provide the context for these local developments, he explained, and a great deal needs to be done to achieve long-term progress and economic stability.

A federal government perspective was offered by James Van Erden, Administrator of the Office of Work-Based Learning, the section of the U.S. Department of Labor in charge of new initiatives in structured work-based learning. (See Chapter 5.) He described how the Department is applying quality management principles to its own operations, and how their support of skill training programs has evolved into an understanding of the necessity of work reorganization. A "new partnership" needs to be forged between the federal government and the private sector, he advised, to disseminate best practice models and develop voluntary skill standards that provide "workforce empowerment and security and portability."

The first afternoon of the conference featured a plenary session on the pivotal topic of "Making the Connection: New Technology, Work Organization and Skills." Eileen Appelbaum of the Economic Policy Institute set the tone (Chapter 6) by focusing on the critical dimension of *choice* between radically different alternatives. There is no "technological imperative," she confirmed, citing international comparisons and her own exhaustive research on the insurance industry. Computerized technology can be used to deskill jobs and maintain hierarchical (and paternalistic) power relations in the workplace; or it can be used to broaden jobs, producing greater work satisfaction and durable improvements in productivity. While the United States has its share of high performing companies, the main thing our country lacks, she argued, is a secure *institutional framework* that encourages employers to move down the high skill, high commitment path. Federal government leadership and a strong union movement are essential prerequisites to an institution-building strategy.

Markley Roberts of the AFL-CIO Economic Research Department reinforced many of these insights, stressing the continued vitality of the labor movement and the capacity of collective bargaining to balance the diverging (yet often complementary) interests of labor and management. (See Chapter 7.) A second response was offered by Dr. Carol J. Haddad of Wayne State University. She questioned a purely bottom-line approach to quality production and decried the tendency of employers to take a "piecemeal approach to work restructuring -- sprinkling in the ingredients that suit their particular recipes." (See Chapter 8.) New work procedures and skill training programs must be viewed in a holistic manner, she insisted, in which the "delicate interrelationship" of all components is taken into account.

On the final day of the conference, speakers examined existing joint approaches to skill training and presented a labor perspective on educational reform. Ray Robertson, General Vice-President of the International Association of Iron Workers, led off one panel by relating his union's long-standing joint administration of apprenticeship and journeyman upgrading programs. (See Chapter 9.) His union uses state-of-the-art modular training systems that give trainees the broad skills needed to obtain employment anywhere in the country. The expertise of unionized iron workers is critical in hazardous material disposal and power plant construction, among many other segments of the economy.

As a member of the Secretary's Commission on Achieving Necessary Skills -- the SCANS Commission -- Paul Cole of the New York State AFL-CIO and the American Federation of Teachers (Chapter 10) is playing a leading role in identifying the skill standards and credentialing systems needed to help young people move smoothly into the world of work. The reorganization of work will occur on a massive scale, he asserted, and it is easy for unions to develop a "bunker mentality." Unions need to develop an independent position on these issues, he argued, a vision of a "post-Taylorist future" supplemented by a progressive strategy and specific contract language.

In the development of such strategies, commented Tony Sarmiento of the AFL-CIO Education Department, the unions need to rely upon their own expertise and knowledge, never deferring to self-appointed experts or "cookbook" models of workplace reform. (See Chapter 11.) He compared the cultivation of work restructuring to an organic process, with requirements of decent pay, access to information, training and worker dignity -- just like plants need a suitable environment of air, water and nutrients.

To promote maximum discussion and exchange of experience, conference attendees participated in several small group sessions; the results are documented in the Epilogue. Jim Murry, following a panel of five discussion group leaders, provided the wrap up. Formerly chief officer of the Montana AFL-CIO, Murry now heads the Institute for Career Development (ICD), a joint venture between the United Steelworkers of America (USWA) and six steel companies. The ICD is a prime example of how unions and companies are working together to broaden workers' skills and implement new technology, all in the context of trying to ensure the survival of critical manufacturing industries. "I believe we are making history here," Murry insisted, citing the diverse nature of the audience and the importance of forums in which experiences can be shared across industry, regional and international union boundaries. His central point: "There appears to be a consensus that international unions and the labor movement should be developing unified approaches and explicit policies on high performance work and learning systems in order to provide guidance to local activities."

In the months since the conference, activities to pursue this policy-making agenda are evident around the country. On the national level, for example, AFL-CIO President Lane Kirkland has appointed an Ad Hoc Committee on Worker Training that is headed by Marvin Boede, President of the United Association of Plumbers and Pipe Fitters, and includes thirteen international union presidents. The Committee will meet regularly to formulate AFL-CIO policy on these matters. In the Northwest, the Oregon State AFL-CIO, under the leadership of President Irvin Fletcher and Secretary-Treasurer Brad Witt, has created a Committee on Worker Education and Training to hammer out a union strategy on the cluster of issues surrounding work reorganization.

In the final analysis, the strength of union-involved and worker-centered programs rests upon the dedication of unions and their members to crafting a more humanistic and compassionate social order. "Those of us who are deeply committed to skill training and

continuous education," says SEIU President John Sweeney, "cannot fail if we remember that underneath the overalls, underneath the white nursing smocks and the tattered aprons, beat the hearts of living, breathing human beings. Human beings with a thirst for knowledge and a desire to promote meaningful and effective change in their society."

Daniel Marschall, Editor

AFL-CIO Human Resources Development Institute

March 1992

1. Labor's Stake in High Performance Work Organization

Alan Kistler, President
and
Michael G. McMillan, Executive Director
AFL-CIO Human Resources Development Institute

Much is said these days about how the United States must be more competitive in the global economy. Corporate leaders and academic experts alike praise the virtues of lean and efficient business organizations that adopt the latest technology to boost productivity and increase profits. Dozens of reports and government studies have examined different dimensions of these issues in recent years.

There remains a sizeable gap between the rhetoric of competitiveness and the reality of private sector operations in our country. Too many employers continue to cling to the outmoded and authoritarian management methods introduced by Frederick Taylor nearly a century ago. And too few employers accept a fundamental truth: that the single most important factor in truly productive and high performance companies is the *human factor* -- the skills, knowledge, experience and commitment of people on the shop floor or in the office.

The only way for the United States to regain its economic standing in the world community, and for Americans to continue to enjoy a decent standard of living, is for employers to adopt participatory forms of work organization and devote far greater attention to the training, skill upgrading and continuous learning of their workers.

Efforts to reorganize work and provide skill training will be successful only if unions are involved in the design, implementation, administration and evaluation of such programs. No matter how many, well-meaning, and sincere employers embark on the process of workplace transformation, such activities will be effective only if the knowledge and experience of workers are figured into the equation. As the representatives of employee interests on a wide range of issues, union organizations provide the only proven, effective vehicle for ongoing worker input into the process. In this sense, worker empowerment is built upon the foundation of meaningful union participation at many levels of company decision-making.

Labor unions thus have a major stake in the wholesale reorganization of work in U.S. firms. As companies experiment with advanced technology and different types of new work arrangements -- cellular manufacturing, flexible specialization, pay for knowledge, Just In Time production, Statistical Process Control, and other systems -- workers will be affected in many ways, positive and negative. Some jobs will be eliminated as classifications are

combined and rationalized; in that instance, workers deserve the right to obtain the training necessary to move into new positions. They also deserve the higher wages that should accompany these high skill jobs. They need an effective instrument for advocacy and change.

The collective bargaining process remains the most flexible and responsive mechanism to deal with the great variety of issues that arise around work reorganization and ongoing skill training in unionized facilities. To oversee these activities, joint labor-management committees should be formed with full representation of elected union officers. Whenever possible, a separate training fund should be created and administered by the joint committee. When individual jobs are examined, frontline workers and line supervisors -- the true "subject matter experts" -- must be full involved. These joint structures and separate funding sources will serve to equalize control over skill training programs, helping to ensure the quality of training and the long-term stability of the effort.

Moreover, the knowledge and experience to implement these programs are already accessible. High performance work systems have existed for many decades in the building and construction industry, where jointly-managed apprenticeship and journeyman retraining systems produce highly-skilled and adaptable workers. In other industries as well -- auto, telecommunications, maritime trades, steel, mining, culinary and the public sector, to name a few -- joint training trusts have been created to oversee permanent skill training efforts. When these programs are integrated with work reorganization, and informed by the input of union officials and workers, the basis for economic revitalization has been secured.

It is also important to understand that activities at individual companies, even when fostered by local governments and state economic development programs, cannot produce the institutional change needed to benefit the American economy on a long-term basis. Ultimately, a national-level commitment to economic revitalization and industrial retooling is essential. This outlook is particularly critical today as the economy and working people are battered by manufacturing layoffs, defense industry cutbacks, the impact of environmental legislation, and the continued flight of jobs to Mexico and other foreign locations.

We live in a time when a number of monumental issues are converging. Our nation faces critical choices about how to proceed. The decisions we make as a society over the next few years will affect the quality of life and the country's economic standing for generations to come. In this context, the American trade union movement is dedicated to playing an active role on behalf of our members, their communities and the well-being of all working people.

2. Key Elements of High Performance Work and Learning Systems

Dr. Ray Marshall
Audre and Bernard Rapoport Chair
University of Texas at Austin

Let me begin by congratulating the AFL-CIO Human Resources Development Institute (HRDI) for organizing this conference on an extremely important subject. It is a subject with controversial elements, of course, but most important subjects are. The topic of "high performance work systems" is critical because we are in a period of tremendous change. The United States has gone from a classical economic system, with work organized according to the scientific management principles of Frederick Taylor, to one that is very different. The previous system had substantial advantages in terms of our position in the international economy. In the new system, organized around very different principles, we have substantial disadvantages relative to much of our world competition.

At the heart of our disadvantage is the lack of sufficient education and training for front-line workers. That was one of the main lessons learned by the Commission on the Skills of the American Workforce, co-chaired by William Brock, Ira Magaziner and myself, which studied the situation in the U.S. and six other countries. The Commission interviewed more than 2,000 persons in the U.S. and six other countries in the course of preparing the June 1990 report, *America's Choice: High Skills or Low Wages!* We found was that the United States is virtually the only country that does almost nothing for young people who are not going to college. In addition, very few front-line workers in our country obtain systematic education and training.

A great deal of evidence suggests that the competitiveness of our economy depends heavily on the skills of front-line workers. We do a lot for those who go on to college. You would expect this in a country deeply rooted in Taylorism, which was based on some very elitist concepts about people and their motivations. We do almost nothing for people at the front line of production -- except for our apprenticeship programs which are world-class. Less than 10 percent of non-college-bound American workers get any kind of training and education at the workplace. You would expect that from a Tayloristic system, of course, because Frederick Taylor taught that the front-line workers didn't need much education and training. In fact, he taught, and American managers implemented the belief, that educated and trained workers were a threat to management because this caused management to lose control of the work. Therefore, according to Taylorism, you needed to break down jobs into many separate tasks, find people who did not have to think, and have them do routine and repetitive work.

The concepts of Taylorism have dominated the organization of work in America for generations. But the impact went far beyond business organizations. These principles were applied across the board in American society. Schools were organized along Tayloristic management principles much more rigorously than in many industries. And the same elitist concepts held. Teachers were not supposed to have to think as they mass produced students who would be satisfied going to work in the mills, mines and factories organized along Tayloristic guidelines. Government and social services were organized along similar lines.

This old Tayloristic system is a producer-driven system. What is the basic idea here? You have an elite that is in charge of thinking and planning and managing. Their plans are implemented by a bureaucracy, and the work is carried out by the front-line workers -- whether they be teachers, blue-collar production workers, or secretaries. Someone else is supposed to do the thinking and planning so that the workers or teachers at the point of contact with the clients or customers or students don't have to think for themselves in order to carry out their missions.

What does all this mean? It means that the question of high performance work organization is not unique to business and industry and the private sector. We need to pay attention to these issues as we talk about reforming our schools, changing our training systems, restructuring government and making it more responsive. The elements of "high performance work and learning systems" are relevant to many aspects of American society.

You could also have a debate about the term -- high performance work organization. When using this terminology we are talking about a means to an end, not the end itself. My preferred title to this speech would be: "How Can We Be a High Wage, Full Employment Country with Equity and Justice?" That is what we are really talking about.

Two Choices

Why do you want a high performance organization? Well, whether you are an individual or a company, you can compete in only two different ways. You have two basic options. You can compete by cutting wages or you can compete by improving productivity and quality. Those are the fundamental choices. Every other thing you do is indirect. If you cut exchange rates, for example, as the U.S. and some other countries have been doing, that's the same as cutting wages.

Here's the real question: why not pursue wage-cutting? The Commission on the American Workforce found that the U.S. is the only major industrial country pursuing a low-wage strategy. We are trying to compete mainly by reducing wages, either directly or indirectly. That is one reason real wages are lower in the United States today than they were in 1970. Productivity growth has stagnated relative to other countries. The only other country following this path is the United Kingdom and both of us are rocking along the bottom in terms of international performance.

Why did other countries reject this strategy and decide to encourage high performance organizations? Well, they thought about it and rejected it for specific reasons. If companies are unable to pay a competitive or prevailing wage, they will tell you in Sweden and Singapore and other nations, we don't want them. Let them go some other place. Why do we want them to go some other place? If they paid less than what society considers to be an acceptable wage, they are being subsidized by somebody -- either those workers or the whole society. And why would you want to subsidize inefficiency? Why not have a structure that forces people who cannot pay decent wages to go out of business? And then have policies that shift those resources to other enterprises that can be competitive in international markets. That's the way you improve your productivity -- you subsidize efficiency if you are going to subsidize anybody.

What do they do in other countries if they conclude that an industry is unable to compete? They let it close down and they retrain those workers to produce competitive products. They produce Volvos in Sweden instead of ships. That's what they do in Sweden and Japan and Singapore and most countries. In this way they get favorable interindustry shifts and productivity growth. We get unfavorable shifts. We are moving people out of high productivity things into low productivity things. And that is one of the reasons that our productivity growth has stagnated.

A Losing Strategy

When Commission members visited these countries, the people we talked to gave us a second reason they did not pursue a low-wage strategy. Simply put: you would lose it. Why would you would lose it? Because there is always some country, some other place, with lower wages. So if that's your strategy, you are going to be in constant motion -- as we are in the south, where we have been attracting industry that was on its way to the third world. That's one of the reasons you've got a lot of depressed areas now in the sun belt. Industry has moved on. They chose to compete by paying low wages and once they were unable to have low wages here, they went to Mexico to the Maquiladoras. The same situations is true in Asia. There will always be a country with lower wages. So if you use that development strategy, you are going to lose in the end.

The other thing they said is that you wouldn't want to win anyway using this strategy. It implies not only lower wages but more unequal wages. Why is that? In any system you are going to have a cadre of well-trained, well-educated people and they are going to do all right. Their incomes are not going down. The only people in the United States who are better off now, on the average compared to 1970, are college-educated people. The other exception are apprentice-trained workers. Almost everybody else is worse off. The people whose incomes are likely to go down are those in very localized labor markets who have very limited options. Their wages will decline. The less education and training you have, the worse off you are.

Why should we worry about unequal wages? Well, other countries tell us that if you have very unequal distribution of income, it causes you a lot of trouble. It not only threatens your democracy and your society, it makes it hard to build the kind of internal unity needed to solve most of your problems, especially economic problems. Why is that? Once you get very unequal income distribution -- the United States has the most unequal distribution of any major industrialized country and it's become much more unequal in the last ten years -- then the only way you can get the money to pay your bills is to borrow. You can't tax because the high income people won't permit that. And if you are unable to tax, your only other option to pay your bills is to borrow. That means you transfer the bill to future generations. You also increase the amount that you have to pay right now to service that debt. Thirty-nine percent of the effective federal budget goes to service the debt right now. As that debt increases, a larger and larger proportion will be used for that, with less and less available for education and training and many other productive purposes.

If you do a study and correlate income distribution with external debt in different countries, you find a very strong correlation. Countries with relatively equal distribution of income, like Western Europe and Scandinavia and Japan, have very limited external debt. They are able to tax and invest in their people in order to become productive. Countries like the United States, as well as Mexico and Brazil in this hemisphere, who have very unequal distribution of income have great trouble getting support for the kinds of things they need to do to be world-class. Once a country gets to that point, it is very hard to reverse it. I think we are at that point in this country and it's a very serious problem.

How do you reverse this decline? There has to be consensus that we ought not to pursue the low-wage option and that we ought to move to a high-wage option. We have to be concerned about improving productivity and quality, and reorganize work accordingly. This is where we come to the elements of a high performance organization. I think there are eight of those elements. Let me emphasize that they have to operate together as a unified and coordinated whole. You can't pick out one and just focus on that. You have to think of it as a system rather than individual items. What are these elements?

The Eight Key Elements

The first element is the effective use of all company resources in order to achieve continuous improvements in productivity. That is different from the way it was done in the mass production Tayloristic system. In that system you made very inefficient use of some resources but achieved economies of scale. It was economies of scale that made it possible for Henry Ford to reduce the cost of a touring car from \$850 to \$360 in six years. The techniques of mass production improved our standard of living for many years.

Traditional mass production is no longer the best way to operate. Why is that? In the first place, you had to have the American market to yourself. We had three big auto companies serving American consumers. International competition is now a fact of life and

American companies can no longer simply split up the domestic market. The other reason: with modern computerized technology you can get many of the advantages of economies of scale without large company size. You have the possibility of relatively small enterprises utilizing flexible technology to obtain competitive advantages. So using all of your resources productively becomes much more important.

The second element is an acute concern for the quality of products and services. What quality really means is meeting the needs of your customers or clients or members or constituents. Why is that suddenly so important? Again, look at the old Tayloristic system. It was producer-driven. It was managed at the top by elites and implemented by a military-style bureaucracy. Henry Ford said you could have any color car you wanted as long as it was black. Well, nobody would say that these days because the modern system is consumer-driven. It is driven by the needs and tastes of consumers who want more choice and greater variety. They also have higher expectations and less tolerance for shoddy merchandise. This means that you better meet your customers' needs or you're going to be in trouble -- as our automobile and electronic companies found out.

Quality also influences a lot of other factors. Quality makes it possible to improve productivity, for example. The close connection between quality and productivity was a very difficult lesson for American companies to learn. Operating in a Tayloristic framework, American managers believed that you had to increase costs to improve quality. Because in a Tayloristic system, you did have to add costs. You had to hire some more inspectors and have more inventory and that all costs you more.

In a high performance system, quality costs you less. If you do it right the first time, you do away with a lot of the make work and repair work. If you have a proper organization of the work, you prevent defects. The traditional Tayloristic system just tried to catch errors before products went out the door. The modern system is quality-driven -- everybody, not just inspectors, becomes responsible for maintaining quality. So you eliminate the need for large inventories and lots of inspectors and a bloated bureaucracy. And you end up increasing productivity. Our competitors have repeatedly demonstrated the power and effectiveness of this approach.

A third characteristic of high performance work systems: an effective and participative management style -- with the emphasis on participative. A participative and non-authoritarian management system means that you promote horizontal cooperation and, most important of all, you decentralize decisions to the point of production or to the point of contact with the customers. Because that is where the work really gets done. Those are the people who are going to improve the technology and see that quality is maintained. This means empowering front-line workers to use their individual discretion, experience and creativity to solve the flood of problems that always arise in production or service delivery. And it means workers being able to cooperate with their peers in a mutually supportive atmosphere.

Flexibility Plus Commitment

A fourth element is internal and external flexibility. Flexibility is one of those words that can cause you trouble -- one person's flexibility is another person's job insecurity. You have to worry, therefore, about putting all of this together into an integrated system. Flexibility is not likely to be very effective unless it is part of a system. A key part of this is participation -- working together to jointly decide how to improve flexibility.

Why is flexibility so important? It's important because the modern competitive system is very dynamic. It changes a lot. It's not only dynamic in terms of constant change, it's diverse in the sense that you are targeting markets that are very different and, therefore, you have to understand something about those markets. The ability to adjust and rapidly adapt to change has become a critical element in the success of people and their organizations. To some extent, of course, that has always been the case. Now it becomes much more important. Long ago, if you looked at tiny cockroaches and big, powerful saber tooth tigers, and you predicted which one of these fellas was going to survive, you never would have thought that the cockroaches would make it. You would have said that the saber tooth tiger has got to make it, but it didn't. The flexible and adaptable cockroach is still around. There are important lessons there about what kind of organizations survive radical change in the environment.

You need to achieve flexibility in a way that doesn't undercut the next important element, the fifth important component in high performance work systems. You have to create a positive incentive structure that builds worker commitment. Such incentive structures are sometimes implicit, but most effective if they are clear and explicit.

One of the most serious problems with the traditional Tayloristic model is that very few of the incentives are positive. Most of them are either negative or perverse. Simply put, negative means if you don't do what I tell you to do, I'll beat the hell out of you. Just look at the Chinese. Talk about a management system with negative incentives. In Chinese slave labor camps, if you don't come up to their idea of performance, they hang you up by your thumbs. Now that's pretty negative. In this country, you get fired or they put you on report or place something in your service jacket. How about perverse incentives? Here's a great example. Opinion polls indicate that most American workers believe that if they improve quality they will lose their jobs. That's hardly an incentive to get improved productivity out of people.

Now, if you don't have to produce quality, you could motivate workers in this manner. If you have to produce quality in order to survive, you're never going to do it out of fear. It doesn't work that way. You get people to produce quality because they want to do it. Therefore, we need to have positive incentives.

How do you get positive incentives? What are some illustrations? The first thing you do is overcome the negatives. Job security becomes extremely important here. If I tell you

that nothing you do to improve the performance of this organization will cause you to lose your job, you've got a very different attitude about improving productivity. Such incentives are especially powerful if you put them in the labor agreement. These steps not only strengthen management, but also increases the incentives of workers to perform on behalf of the whole organization.

Another part of a positive incentive system: you offer rewards for the outcomes that you want to achieve. Group incentive makes a lot more sense these days, though there are no hard and fast rules on how you arrange such structures. Pay is a major incentive, of course. Also, you connect pay to performance of the organization, or to learning and acquiring job-related knowledge, in order to get higher performance.

Another important element, something that our people seem to have trouble understanding as part of increasing worker commitment, is internal unity. How committed are we to this company or organization, whether a labor union, a state, or the country? A job builds commitment if you get recognition for good performance, get dignity and greater self-esteem, and if there is an environment of fairness and justice. Under these conditions you can get me to do many things that you couldn't make me do. That's why many companies in the high performance mold eliminate the elitist trappings of American management -- the private parking lot and private dining rooms -- and put everybody on the same pay structure. In a high performance organization, the difference between top pay levels and ordinary pay is much less than in a Tayloristic organization. You certainly don't have arrangements in industry where managers are being paid in spite of the poor performance of the companies, while workers are being forced to take wage cuts and make sacrifices. It's hard to convince workers that "we're all in this together, you know" when management votes themselves a \$21 million salary increase even though the company is in trouble and you ask workers to take a wage cut. Measures to promote internal unity are crucial.

Internal unity is important for another reason. In fact, you have to have it these days. In a high performance system that functions smoothly, workers have a great deal of discretion about whether to produce high quality and be productive. They have a choice about whether to go all out. Although decent pay is part of a total positive incentive system, it is not sufficient in and of itself. There needs to be job security and a feeling that you really are part of the whole organization and an appreciation of how the company functions as an integrated whole.

Deploying Advanced Technology

The sixth element in a high performance system is the development and use of leading edge technology. This point includes both the constant improvement of existing technology on the job, and adapting technology that is developed elsewhere. It's nonsense to think that we can't learn from other countries. One of the reasons the Japanese have done so well is because they emulated us. So we ought to be optimistic about our future because if we emulate

them now, we'll do pretty well because we can learn from the technologies they have developed.

Why do you have to develop and use leading edge technology? Technology is mainly ideas, skills, knowledge and human capital. These dimensions are far more important than just machinery. If we destroyed Japan and Germany's machines, they could come back in a hurry because they have the ideas, skills and knowledge to adapt to changing circumstances. Our tendency to focus on the machines is misdirected.

Looking again at Taylorism, you see a traditional production system with unskilled workers and standardized technology. The old system was designed so that anybody could do the work with minimal training. That was an important part of Taylor's theme: transfer the ideas, skills and knowledge from people to the machines and have management operate like it had the "right" answer about how to do everything.

Now the United States is faced with a global economy. Standardized technology can be used anywhere, so you are not going to get higher wages. Standardized technology works just fine in low-wage areas. So what do you do? How do you adjust to that reality? American companies have tried different ways. One strategy I call the "General Motors approach." They said: "Well, we'll automate." We will bring in the most advanced robotics and leading edge technology, and not pay a lot of attention to changing the work organization, enhancing the skills of workers, or exploring other human capital solutions.

At one point our military was operating in that mode. We'll have "star wars" and illiterates, they said, and we'll make the technology idiot-proof. It was a disaster. In fact, one of the military people in charge told me he was glad we didn't have any serious military problem when we were in that mode. The fact is people have to make the machines work. As with many things, your treatment of technology depends on your theory of it. The General Motors theory was that workers were the problem and technology was the answer. Therefore, you use technology to displace people and that's how you improve productivity.

The best theory, the one that has been proven to be most effective, is that you use technology to extend human capabilities. Ford Motor Company used this theory of skill-based technology and it helped to make them more profitable than GM by about 1986. General Motors spent \$40-60 billion on their machine-based technology approach and competitively they were worse off at the end of that process. General Motors should have learned from the experience of their NUMMI plant in California. There the plant used old technology and the same workers in a facility that GM had closed because they couldn't make it competitive. They reopened the plant in a joint venture, changed the management and work organization system, and provided more training and work variety to the workers. Within eleven months it was the most productive automobile plant in America. They should have learned then that technology is not the answer and the workers weren't the problem.

The deployment of skills-based technology leads to the seventh critical element. You have to have well-trained and well-educated workers who have the capacity and opportunity to make leading-edge technology function at optimal levels of productivity. You need workers who can constantly improve both the product and the technology, and who can deal with change and communicate with their peers and supervisors.

In the new high performance environment, workers have to know things that were not as critical under the old system. What do they have to know and be able to do? One of the most important things is how to impose order on chaotic information. Advanced information technology makes a tremendous amount of data available to you. If you don't know what to do with it, it's worse than not having it. It's confusing. If you know what to do with it, if you can improve whatever you are doing -- you can be a better teacher, run a better household, function more effectively in the workplace. You can see patterns in the data. You can detect potential problems before they happen and develop solutions when problems do arise. Understanding and using abstract data to improve whatever you are doing -- this is an important new skill.

Another important all-around skill, especially crucial in a dynamic and rapidly changing world, is how to learn. Our schools have done very little to teach people how to learn. We seem to assume that people are just going to pick up this ability. Well, like anything else, there are skills to learning and ways to learn rapidly. Many of our high performance companies are spending a lot of money on that. Learning is the most important thing happening at work, they will tell you. Helping the learning process occur more efficiently is a high yield investment. There is abundant documentation of that. Theodore Schultz, in his studies of human capital, won the Nobel Prize for showing that the return to investments in human resources are higher than a return on the investment in physical capital. So continuous learning, on-the-job and in the classroom, has become very important.

An Independent Source of Power

The eighth and final element in this whole system relates to having an effective, industrial relations system. In my judgment, the workers have to have an independent source of power or the system won't work. Or it won't be very viable and won't work as effectively. Why is that? There are three main reasons. First, it's going to be hard to get workers to go all out unless they have some way to protect themselves in the process. They've got to have some institutional backup as they take on new roles and explore new production methods. A lot of good managers understand this dynamic: if you have an effective relationship with the union, you can get things done that you could not accomplish unilaterally. Therefore, you can get people to go all out.

The second reason: it is very hard to have a cooperative relationship between parties of unequal power. Why is that? Basically it's because if you've got power you tend to use it. If you look at the history of industrial relations in this country, you see that there's nothing new

about these worker involvement schemes. During the 1920s they were called Employee Representation Plans. There workers were supposed to be partners in the production process, with representation organized like the government. The executive was the executive, the foremen elected people to the Senate, the workers elected people to the House of Representatives and they made legislation. I don't have to tell you what happened to that partnership. If we are supposed to be equals, and workplace legislation fails in the "House," and then the "Senate" puts it through anyway, what does the House do? The members of the House go out and get a union. That's how we got the steel workers union and the communications workers. They were elements of company unions in the beginning. That is the natural evolution of an unequal power arrangement.

There is a third reason why workers have to have an independent source of power. If the relationship between workers and managers is good and effective, it is inherently adversarial. In the best of circumstances, both sides have different perspectives and are going to disagree about some things. How high are my wages going to be? Whose going to run things? Disagreement is inevitable and healthy. But a functioning adversarial relationships provides a way to resolve differences.

At the same time, an effective relationship is also inherently cooperative. Labor and management have things in common -- like whether the company survives or the organization prospers. Unions in this country don't want to bankrupt the places where their members work. Labor and management have a common interest in the competitive position of the firm. When that common interest breaks down, the fight becomes so important that we make the pie smaller for everybody. I call this the "blaze of glory mentality" -- I may be going down, but I'm going to take you with me. You are in big trouble if it gets to that stage. The Japanese actually did that in the 1950s as did the Germans in the 1960s. But they has the sense to get together and decide they would organize themselves in a very different way in order to meet their mutual objectives.

During the 1970s we tried to reform that National Labor Relations Act. The point was to give the workers a choice. That's what I mean by workers having an independent source of power -- they have the choice to be able to organize. That is not an effective choice today. We still need to reform our labor laws and I think more and more thoughtful employers are reaching that conclusion for a variety of reasons. One, they see that it has an important societal effect. You're not likely to have a free and democratic society without a free and democratic labor movement. I don't think there is any serious controversy on that subject. We can see it in Poland and the Soviet Union and other places, but we have trouble applying that principle in our country. That's one of the changes a lot of employers have to make.

As I go around the world, I find that people are perplexed by the United States. You've got the only labor movement in the world that openly embraces capitalism. Yet the capitalists have formed a Council for A Union-Free Environment. How do you explain that? It's difficult to explain it. It's like a lot of other things -- unions are a good general principle

but individual employers don't want to buy into it. Well that's crazy. Who else is going to represent the interests of workers in the country?

Sooner or later the choice of American managers is not whether the workers are organized, but what kind of organizations represent their interests. If unions have to be militant and anti-management and anti-company in order to counteract the hostility of companies to union organizations, then that's the kind of labor movement you're going to get. Workers tend to ultimately put up the kind of leaders they think they need to deal with the kind of employers they've got. If you want unions to be responsible, to participate and be concerned about productivity and quality, then management has to believe that unions have a legitimate role in helping to achieve those mutual goals.

Also, it's important for efficiency reasons for workers to have mechanisms within the workplace to represent their interests in many areas. The way we generally operate in this country, through a bureaucratic and Tayloristic approach, is very inefficient. For instance, we're never going to solve the occupational safety and health problem with inspections and regulations. We need to give the workers and the managers at the workplace the knowledge, power and incentives to deal with their own problems. Then use our inspectors to go after the incorrigibles. We need labor-management safety and health committees in workplaces. And we could extend that. There are many kinds of activities that you could improve by having a greater degree of worker involvement. A good orienting hypothesis is that American workers have less control of their work than workers in any other major industrial country. And they have fewer independent sources of power, and that's a problem for our economy and entire society.

Necessity of Mutual Change

There is a great challenge before us. How do you concentrate on the cooperative part of the labor-management relationship and minimize the adversarial part, while still recognizing that the adversarial process is important and serves a useful function?

What that requires, of course, is that both sides change. If you've had an adversarial system for generations, and you didn't have to worry about quality and productivity to compete in the world marketplace, you learned to live with an adversarial relationship. Why do you need to change that? One important reason is that it's hard for the two sides in an adversarial relationship to learn much from each other. You're not going to share a lot of information with people and communicate very effectively if you're mad at them.

The union has to recognize that it's important for the company to survive. They have to understand management's concerns and be willing to participate and become involved in things that they didn't have to become involved in before. If you don't do that, then you are delegating to management a function that has a heavy bearing on the welfare of your members.

On the other hand, management cannot expect unions to act in a cooperative way under a cloud of hostility. To paraphrase Glenn Watts, former president of the Communications Workers of America: "It's hard for me to cooperate with you and to feel that we are in this thing together when the arm you put around my shoulder has a knife in it." You are out to do be in. You don't accept my right to exist. You regard me as a necessary evil, something imposed on you, rather than being an integral part of the system. Therefore, you don't recognize my legitimacy as an institution. If management does not respect the legitimacy of unions, you will never have a high performance work organization. You can do pretty well for a while, or you can try to pursue a low wage strategy.

Well, I could go on and on. I can tell by the looks in your eyes you think I'm going to. So I'm going to quit here and thank you for your attention.

3. Remarks on AFL-CIO Policy Priorities and Introduction of Luncheon Speaker

**Rudy Oswald, Director
AFL-CIO Economic Research Department**

Before introducing our excellent luncheon speaker, I would like to say a few words about the public policy priorities of the AFL-CIO, especially as they relate to the broad issues of full employment, high wages and what Ray Marshall called "high performance work systems with equity and justice."

We have a long way to go when it comes to achieving long-term progress on these issues. A good example is the goal of high wages. The minimum wage today, in terms of real buying power, is lower than it was a decade ago. The minimum wage is about 42 percent of average earnings, compared to 50 percent in years past. For many workers the decade of the eighties was a decade of decline in real wages.

In addition, full employment remains an elusive objective for our society. We are in the midst of the most serious recession since the 1980s. Yet this is the first severe downturn in which unemployment benefits have not been extended. The problems that the labor movement and the U.S. Congress have had in getting such an extension enacted are well-known.

In the way of training, there are four broad public policy issues that represent a great challenge for the labor movement.

The AFL-CIO remains concerned about the future of the Trade Adjustment Assistance (TAA) program as well as its effectiveness in carrying out the purposes for which it was established. In testimony in front of the U.S. Congress, we will be presenting ideas to bring TAA back to its original promise. We hope to assure that TAA provides some solace to the people who will be hurt by the Mexican Free Trade Agreement, and that it has income support as well as long-term training opportunities.

Economic conversion is another major issue we are facing in the years ahead. The U.S. Congress appropriated only \$150 million for training to help those affected by the plant closings and the based closings that will result from changes in our defense budget. Hopefully we will see some of those defense operations converted to other uses. A great deal needs to be done to make sure that notices under the Worker Adjustment and Retraining Notification (WARN) Act actually provide opportunities for workers to adjust to displacement in the last 60 days of their employment. Similarly, action is needed to ensure that the

Economic Dislocation and Worker Adjustment Assistance (EDWAA) Act provides meaningful training for dislocated workers.

There is also the question of quality. An important element of high performance work systems is the delivery of quality products and services. Meeting your customers needs is a growing priority for all sorts of organizations. In the past we often saw quality as mainly the employer's responsibility. This applies to unions as well. Our union members -- our customers, so to speak -- need skill training, continuous learning, access to apprenticeship and journeyman upgrading in order to achieve higher wages and worker empowerment. Unions are the principal mechanism for reaching their goals, whether through career ladder systems or joint labor-management programs or other means.

Our luncheon speaker brings to these issues a tremendous wealth of experience, both as President since 1980 of the million-member Service Employees International Union (SEIU) and earlier as the head of SEIU Local 32B-32J in New York City. With 60,000 members, Local 32B-32J is bigger than some international unions. In his work with the AFL-CIO, he chairs two of the most important standing committees, the Standing Committee on Organizing and the Standing Committee on Health Care.

In my work with the Service Employees, I had the opportunity to see their commitment to training in action. The program at 32B-32J is one of the finest ways for janitorial employees to move up the career ladder after they enter the occupation doing repairs and other activities within their jurisdiction. In the health care area as well the union has done tremendous work in the area of career ladders. I urge you to pick up the career ladders booklet published by SEIU Local 767 at Cape Cod Hospital. SEIU also has done extensive work in the public service area.

I am very happy to present to you the President of the Service Employees International Union and Vice President of the AFL-CIO, John Sweeney.

4. One International Union's Approach To Skill Training and Continuous Learning

**John J. Sweeney, President
Service Employees International Union, AFL-CIO**

Our union perspective is grounded in faith, faith in the American worker. Given the opportunity to acquire the skills and knowledge needed to do the job, the American worker is capable of great achievements in today's world economy. Our perspective is also grounded in facts.

Fact 1: Reform of our education system is vitally-linked to our ability to properly train our nation's future workers.

Fact 2: Even if educational reform proves successful, we will not realize significant effects in the workplace for at least a decade.

Fact 3: An estimated 75 percent of those workers who will be on the job in the year 2000 are already in the workforce.

Fact 4: To be ready for tomorrow, we must focus on training the members of our current workforce today.

Today's workforce is poorly educated. One out of five 18-year olds is considered to be functionally illiterate. This is a higher percentage than in any other industrialized nation. Today's workforce is no longer predominantly white and male. Three out of five new workers are women and 25 percent are minorities. By the year 2020, two-thirds of American workers will either be a female or a minority, groups that have historically had less education and training and less opportunity.

The membership of the Service Employees International Union (SEIU) -- now one million workers -- is a mirror image of the American workforce today. A high proportion of SEIU's members are either high school dropouts or are limited in their English-speaking ability. Many of our younger members enter the workforce with inadequate education and basic skills. Many of our older members have spent years in low-level positions; their basic skill limitations prevent them from applying for or qualifying for advancement.

SEIU has had a long-standing tradition of organizing entry-level workers. We have always been, quite literally, a union of immigrants and the disadvantaged. We have long understood that the ability of our members to communicate effectively at the workplace not only affects their ability to acquire the skills necessary to do their jobs effectively, but also affects their ability to become a positive force at the workplace, in their union and in society

as a whole. Over the years our union has struggled with the problem of illiteracy, functional illiteracy, and under-education. Many of our locals have a long, proud tradition of union hall and workplace education, both in basic skills and career development.

Some of my fondest memories in the labor movement are of my days as president of SEIU's largest local, 32B-32J, in New York City. There I helped to track the progress of our janitors -- janitors who so aptly fit the description of today's workforce -- following them through our basic education skills program into our skilled building service programs. Today I'm proud to say that SEIU is playing a leading role in advancing the idea of apprenticeship training in non-traditional areas like the building service sector.

Though each one of our local's programs has evolved differently, we have come to learn some basic truths. Many workers are more ill-prepared in basic skills than we ever believed. Workers thrive when an atmosphere of psychological support is nurtured through counseling, peer discussions, and mentoring programs. We know that workers' lives are hard enough without our making them harder and that the best programs take child care and travel requirements into consideration. And universally, we have found that workers have a boundless desire, determination and vigor to improve themselves -- if only given the chance.

Perhaps more importantly, we have learned that the programs with staying power are the ones in which unions and their members have had a voice in expressing their legitimate concerns; programs in which they have had an active role in implementing with these concerns in mind. Unfortunately, for many of our established locals, an enlightened relationship with employers has come only after years of slow-as-molasses labor management meetings or collective bargaining struggles. Too often the union's sheer clout, rather than enlightened management attitudes, have allowed our voices to be heard.

As a member of the National Advisory Commission on Work-Based Learning, I have been a strong advocate of benchmark programs which promote cooperation between labor and management and involve workers in the design, implementation and administration of work-based learning programs. I believe that the federal government has an obligation to identify and publicize the best practices of labor-management cooperation in all manner of skill training programs.

Here are a few positive examples. SEIU represents about 400,000 health care workers. Many of these workers struggle in low-tier jobs, their mobility stymied by their lack of educational opportunities and poor basic and job-related skills. At the same time, many health care institutions are experiencing acute shortages in positions that these very workers, with appropriate training, could fill.

In Seattle, Washington, SEIU Local 6 has had success working with the Human Resources Development Institute (HRDI) and hospital management on a skill upgrading project at two health care facilities which they have under contract: Group Health Cooperative

of Puget Sound and Swedish Hospital Medical Center. The objective was to provide worker-centered, on-the-job skill upgrade training in specific job classifications. Success was to be measured by the direct usefulness and effectiveness of the training, the success of participants in moving into new jobs, and the level and quality of worker involvement.

At Group Health, we targeted workers to train for the position of medical assistant, a growing job classification. The response was overwhelming. One-hundred twenty workers applied for ten trainee positions which the cooperative immediately expanded to 16. For fifteen weeks participants attended classes two nights a week, devoted one-half day every Saturday to laboratory work, and spent a full day in on-the-job training. Additionally, they continued to work their own full schedules. And yet with these undeniably taxing workloads, 14 out of 16 workers graduated, most of whom are now working as medical assistants.

A somewhat different approach was taken at Swedish Hospital. There the target was medical transcription, a very technical job that demands knowledge of medical terminology and medical procedures. Transcriptionists work independently, refining their skills through seemingly endless practice. The training demands a great deal of self-paced commitment and extensive memorization. A flexible self-study program, therefore, was instituted incorporating the use of a mentor to oversee the workers' study program. Currently five students are participating in the program with all expectations of successfully concluding the course of study.

Both of these Seattle programs, part of HRDI's Upgrading and Career Ladder Program, are success stories. They represent success stories that will live on after the expiration of HRDI's funding from the U.S. Department of Labor.

Indeed, SEIU is intimately familiar with the initiation and long-term maintenance of such programs. At Cape Cod Hospital, SEIU Local 767 has had a career ladder program for the past ten years. The local has used its collective bargaining opportunities over the years to codify a program contained in a manual of no less than 95 pages. It is a document that reflects the union's commitment to a program that increases employees; knowledge as well as skills; a program which allows opportunity for workers to upgrade their job positions and advance their career without comprising their continuous employment and benefits. It is a document of a program that allows for ample time for training. It lists the job functions, the job requirements and the educational requirements of over 60 positions. You can be assured that there are few questions left to the molasses of phony labor-management meetings. It is very much a document of trust between workers and their employers.

Why have these programs been so successful? To paraphrase from the preamble of Local 767's booklet on their Career Ladder Program, they are successful because management and the union have recognized their common goal: to deliver excellent health care to the community by staff who are personally and professionally challenged and rewarded. The overwhelming factor in this success has been involvement of the workers. The programs have

been built on what workers already know. Better than focusing on their lack of knowledge, they have addressed the needs of the whole person and responded to their individual concerns. Workers have participated on steering committees and working committees, as mentors and as trainees.

By having some control over their own education opportunities, SEIU members took more responsibility for their own learning in these programs. Weaving together the concerns of both management and labor, these efforts met the needs of both. They also produced a quality of work environment and a workforce instilled with pride and accomplishment.

These programs have succeeded because our union knows that the only true academic tenet of training programs is the one that recognizes that workers are all different. The strength of these and other such programs has been our ability to adapt to the circumstances at hand. Most importantly, these programs will only continue to succeed if the labor-management process of cooperation continues.

Moreover, these programs will only succeed and prosper if they are adequately funded. As trade unionists, we believe that the collective bargaining process is the best and most secure avenue for funding and institutionalizing skill training programs. Language must be included in every contract to cover funding, release time and joint labor-management administration.

Those of us who are deeply committed to skill training and continuous education cannot fail if we remember that underneath the overalls, underneath the white nursing smocks and the tattered aprons, beat the hearts of living, breathing human beings. Human beings with a thirst for knowledge and a desire to promote meaningful and effective change in their society.

5. Advancing Work-Based Learning: U.S. Department of Labor Perspective

James Van Erden, Administrator
Office of Work-Based Learning
Employment and Training Administration
U.S. Department of Labor

It is a pleasure to be here today. It has been a very busy week for me, but I think that reflects the fact that there is so much activity going on around the subject matter of this meeting. In fact, it's interesting that we are even having this meeting on high performance work organizations and skill upgrading. The subject matter of this conference is really on the leading edge, something in which the Department is becoming more and more involved.

High performance work organization has become a hot subject *inside* the Department. We now have teams working very extensively inside the agency to try to create a Total Quality Management (TQM), high performance system. We know that the task is formidable and will take a long time. But it raises an important point. We go out all the time and talk to the private sector and unions and people in the field who are making these systems work. We say: "You have got to reorganize work, you've got to understand who your customer is, you've got to empower your workers, you've got to get a dialogue going between labor and management." But you can't go home to your own organizations and not do the same kinds of things. It is important for the Department of Labor (DOL) to look at our own organization and say: "Are we doing the best we can? Can we set any kind of an example or can we at least move along with the flow in this important endeavor?" I hope we can.

Let me tell you about DOL's perspective on these issues and look at what's going on in our environment today. A few years ago the Department primarily looked at the second-chance programs, focusing on the disadvantaged and the unemployed. These are still very important programs and will remain so. But there is a change going on in our own thinking as well as the thinking of this country. That change revolves around some crucial questions: How can the United States remain competitive? How can we increase productivity? How can we compete with our primary competitors who are no longer just in this country but are spread out all over the world?

A couple of years ago, when Departmental staff was working with the Commission on the Skills of the American Workforce, I remember Ira Magaziner giving a talk. He started talking about work organization. We used to have these sessions before Commission meetings and Ira would give us detailed explanations of how he thought the world was unfolding. The first time he talked about high performance work organization, I thought, well, that's really interesting but I'm not quite sure how that all fits into what we are doing. After all, we

are in the training world and worry about training people. Not long after, there started to be a major rethinking of this whole issue of training. We started to recognize that you can't train workers, or really empower frontline workers, and then send them back into a factory using a Tayloristic production model. If you give people wide skills and the ability to work as a team, combined with the ability to think about what they are doing and to make changes in how they do their jobs, you can't send them back and say: "Okay, now leave your brains at the door, go in and sit down, follow your orders without question, and do the work that you have to do in order to get out at the end of the day."

This evolution in our thinking is important to understand. Several years ago we started looking at apprenticeship and related training issues. As we got into it further, we realized that you can't think about training concepts in isolation. You've got to think about training in an overall environment where workers, unions and employers sit down and open a dialogue about what's going on in the workplace and how they can utilize people's skills and abilities to their best advantage. That's the critical reason we are gathered here today. How can we engage our workforce and empower workers at all levels in the business of being competitive?

I recently heard a radio program with a story about Germany. When you think about the typical German worker, you have a mental image of a highly productive person, probably working 50 hours a week, whose job is his or her whole life. It turns out that, according to one report, the average work week is 29 hours. The average German worker get six weeks of leave, 14 days of holiday, and takes an average of 18 days of sick leave a year. In manufacturing, they earn about \$4.00 more per hour than a typical American worker in manufacturing. They have built their production system around a very high quality, highly skilled workforce. And they are beating us in many areas of the economy.

We had an opportunity in mid-1991 to go to Europe, where we spent time looking at a number of training systems and how they related to quality and higher productivity. Whether we use the Japanese and their 42-43 hour work week as an example, or look at the Germans with their shorter work week, it is important that we think about our competition. We have to consider what they are doing, how they are organized, and how they build the skills of their workforces. Much of what we are doing today in the Department is looking at those systems, comparing them to our own systems, and trying to figure out how we can improve the way we educate and utilize our workers.

There are a lot of good examples of high performance workplaces. But the problem, as the Commission and others have found, is that while "best practice" exists in a number of organizations, the trend is not really as deep and wide as it should be throughout our economy. In fact, some studies have concluded that the majority of folks out there still believe that you use the worker as a disposable commodity; that you basically bring people in with their basic skills, utilize them until those skills are gone, and dump them out.

You cannot continue to treat people in that way. You can't do that in an environment where our youth cohort is dropping. You can't do that when we are seeing a different demographic mix of people coming into the workplace. We need to know how to manage diversity. So the Department is working with the AFL-CIO Human Resources Development Institute, and with the National Alliance of Business, and with individual companies, to develop demonstration projects to look at how we can do a better job of upgrading and maintaining the current workforce -- all in the context of promoting high performance work organizations that value continuous learning and ongoing skill upgrading.

Let me mention a few other things that are having an impact here. After the Commission on the Skills of the American Workforce published the *America's Choice* report, the Department set up another commission to follow up on those issues. The National Advisory Commission on Work-Based Learning was formed in October 1990. Ira Magaziner is a member and we are fortunate to have as its chair Jack MacAllister, Chairman of US West, Inc. It includes some key union representatives such as George Kourpias, President of the International Association of Machinists; Lynn Williams, President of the United Steelworkers of America; and John Sweeney, President of the Service Employees International Union. There are also senior personnel from major corporations, including Deane Cruze of The Boeing Company and Allen Jacobson from 3M Corporation.

The Commission on Work-Based Learning is looking at a range of issues in the workplace and how we can change things. Their recent recommendations, following a number of roundtable discussions with national experts, include building a framework for industry skill standards in this country -- voluntary skill standards, that is, not mandatory standards set by the federal government. We are talking about skill standards developed and set in place by the private sector -- by industry and labor unions working together -- to develop skills and accredit workers in order to provide workforce empowerment and security and portability.

As we look around the workforce today, we see workers moving from job to job. One of the most important things they can take with them is their knowledge -- probably the most important thing in terms of job readiness. It is important for an individual, over a lifetime of work and learning, to build a portfolio, a system of skills to offer to successive employers.

Think about it: How many of you are doing the same thing you started out doing ten or fifteen years ago? How many of you are actually working in the area of your academic training? People move around a great deal in our society. The Work-Based Learning Commission is a permanent advisory board to the Secretary working on skill standards and related issues in this dynamic work environment.

Another thing you see when you look around this country is that some 75 percent of all employees work in establishments of less than 500 people. These mid- and small-size firms lack the ability to do much of what the larger corporations can do. Quite often they have the desire to hire researchers and implement workplace change, but they lack the

resources and capacity to carry out such activities. Or they may lack the knowledge of what to do. It is very important for us in government, the unions, business and the private sector to look at ways in which we can help those firms to become more competitive.

The U.S. Department of Commerce has regional Manufacturing Technology Centers, located in five or six areas, where people in the manufacturing sector can come in and look at the latest technology, experience it and train on it, and decide whether it is feasible for their companies. In some cases they can go in and actually produce some products at these centers. This is an example of the kind of thing you can do to help mid- and small-size firms.

It is also important to point out that DOL, and the federal government, does not see its task as arriving at solutions and then imposing them on the country. We are really searching for a new role for the Department. During the days of the Comprehensive Employment and Training Act (CETA), there was something like \$600 million in the CETA discretionary funds. If we were funding the Job Training Partnership Act (JTPA) today at comparable levels to CETA, the JTPA would probably be a \$25 or \$30 billion program. Instead it's a \$4 billion dollar program. So, we are working in an environment today in which we have to look to the private sector to carry out many of these initiatives. You are not going to go pass a new piece of legislation that would put billions of dollars into solving workforce problems.

So we are rethinking the role of government in the whole process of promoting change. There are a number of things we can do. We can attend conferences like this and express a broader concern about these issues. We can fund and conduct demonstration programs to experiment with new systems in specific workplaces. We really need to explore the character of a new partnership between the federal government and the private sector.

Finally, though we talk a lot about the private sector, it is important to consider how these trends affect the public sector as well. In the coming years, as we redesign government programs and look at them in conjunction with unions and business organizations, it is important that we change our mind set. We should not just leave it up to the private sector to come up with all the innovations. If high performance work methods are a better way to run businesses, they are also a better way to spend tax dollars. It doesn't make sense to think about comprehensive skill standards or customer needs if you're going to build a dislocated worker program (or any other program) based on the old mentality. When designing government-funded programs, it's very important that you think in the context of the way the world will change in the next ten or 15 years. If you don't think about applying high performance work principles in publicly funded programs, you are missing a real opportunity to make government a much more effective and responsive institution.

The subject matter of this conference is very timely, and I look forward to receiving a nice long report about all the new ideas that emerged and that we can implement to carry this agenda forward.

6. Making the Connection: New Technology, Work Organization and Skills

Eileen Appelbaum, Associate Research Director
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It is always an honor for an academic and a researcher to be invited to speak and to listen to people who are out there everyday struggling to make the kinds of changes that are so important for the future United States -- both in terms of high wages for workers and in terms of the productivity and competitiveness of U.S. firms.

Because my topic is technology, let me begin by saying a few words about the impact of technological change. There has, in the last ten years, been a shift to a new technological paradigm, a qualitative change in the nature of technology. The change has been from electro-mechanical mass production technologies to information technology in the form of microprocessors, computers, and telecommunications. A whole range of new products and services are available because of advanced information technology. It is now possible for small batch production to be competitive with mass production. In large firms this means that computerized production equipment may be reconfigured relatively quickly to produce goods that are similar to one another. Standardized components may be combined into a variety of customized goods and services. New technology also allows smaller firms to be competitive on the basis of flexible specialization.

Moreover, new technology is pervasive in many different industries. There are industries that almost seem to have escaped the industrial revolution and now they suddenly face new technologies that are affecting their front-line workers in dramatic ways. This is certainly true of insurance and banking and legal services. Today these industries have the largest investments in computer technology.

One of the chief characteristics of this technology is that it is very flexible. This means that there is a wide latitude for choice on the part of managers about how the technology will be implemented. The choices that are made about how the technology is implemented have major implications for the kinds of labor skills that are needed. The technology itself is extremely malleable. The differences are especially evident when we make comparisons between countries.

Different National Patterns

A major study of factory automation, *Comparative Factory Organization* (Sorge and Warner, 1986) compares Germany and the United Kingdom. The report finds that there is a "striking variety" in the ways in which factory automation is applied in these two countries. Researchers found that applications can be organizationally simple or organizationally

complex. The same technology is used in very different ways in these two countries. In Germany the application of new technology is governed by the large proportion of highly skilled workers, so that you have a blurring of distinctions between the workshop and the office, between craft workers and technicians, and between production workers and supervisors.

In England, where the apprenticeship programs have been falling apart and where the educational systems is not as highly developed as it is in Germany, you have the opposite trends.

Similar conclusions emerge from recent comparisons of French and Japanese factory organizations, especially in the auto industry. These findings may also be instructive. In France, the work of machine operators has been mechanized and deskilled. There are sharp distinctions between operators and technicians, on the one hand, and between technicians and engineers on the other hand. In France there has been a tremendous increase in the importance of the technician category, and the growth of this category has replaced the promotion of operators to higher positions. So operators are locked into lower skill jobs and the more highly skilled jobs are being done by a separate category of workers specifically trained for this purpose.

For example, maintenance work in French factories is being divided into standardized, routine kinds of maintenance and more sophisticated maintenance. Two different sets of workers are doing these jobs. They actually have two occupational titles. There are programming technicians and there are computer technicians, and they do very different kinds of work. One result of this has been, in France, an increasing polarization of skills and the retention of hierarchical forms of organization. This practice -- having a layer of technically skilled workers who function as intermediates between the de-skilled operators and the professionals/managers at the top -- allows management to maintain a high level of centralized control over the organization.

It comes as no surprise that the Japanese auto manufacturers do things differently. This is true both in the auto industry and in factories in general. In Japan, with respect to occupational categories, beginning engineers are assigned to the category of technician and can be assigned the work of ordinary workers. It's only later that they get promoted to the position of engineer. This practice promotes a lot of reciprocal learning for both engineers and production workers. The engineers obtain experience in conveying information to workers while getting a real feel for the content and stresses of workers' jobs. So in the Japanese situation you have an emphasis on upgrading workers' skills through overlapping functions, tasks and assignments.

Similar differences emerge when we compare the United States with either Japan or Western Europe. The Office of Technology Assessment of the U.S. Congress, in its 1990 report on *Worker Training: Competing in the New International Economy*, points out that

most U.S. production systems continue to reflect the scientific management ideas of Frederick Taylor. The dominant pattern is the replication of existing hierarchical arrangements and an extension of centralized control over production.

The MIT Commission on Industrial Productivity, in its book *Made In America* (Dertouzos, Lester and Solow, 1989), concluded that, compared to our most important industrial competitors, U.S. industrial performance has suffered from management's failure to coordinate design and manufacturing functions; its neglect of process design and production operations; and from management's low regard for training and investment in workers' skills. Further damage has been caused, the report points out, by continued conflicts over the rights of workers to unionize and to participate in enterprise decision-making, producing an adversarial pattern of industrial relations with little trust between workers and managers.

The major point here: nationally-distinct patterns of work organization and skill training are emerging around the globe. Too often, U.S. firms continue to fragment tasks, polarize skills and rely upon the machine monitoring of work and authoritarian control over production to obtain productivity increases. Of course, national origin is not necessarily destiny. We can point to many examples of individual firms in this country that are doing it right, often because unions have pressured companies or there are managers who have some commitment to human values. Worker participation at Ford, Xerox and AT&T are all well-known examples of best practice.

Unfortunately, a 1990 survey of 645 large U.S. companies in both manufacturing and service industries found that only 13 percent were using some form of self-managed work groups, with another four percent reporting plans to move in this direction. These figures are likely to overestimate these trends in the entire economy because large firms are more likely to be moving in this direction than small firms. These figures indicate that movement in the direction of new work systems is very slow.

Alternative Approaches In Insurance

Why have new forms of work organization failed to penetrate very deeply into the U.S. economy? It has a lot to do with managerial ideology and managerial attitudes. In her influential 1988 study of work organization and labor skills, *In the Age of the Smart Machine*, Shoshana Zuboff identifies the problem squarely as one of managerial ideology. Her case studies indicate that the way in which new technologies are implemented depends on whether U.S. managers are willing to relinquish their centralized control over knowledge and authority. She argues that information technology is characterized by a fundamental duality. It can be used to either *automate* or *informate*. The automation option is based on the view that technology is the solution and workers are the problem, and that you simply automate the worker out of having any important role in the production process. The alternative is to *informate*, where the objective is to use computer technology to expand the knowledge base of workers -- to enable workers to make decisions and be intelligent participants in the

production process. In the organizations she studied, management practices illustrated how the need to defend and reproduce the legitimacy of managerial authority served to channel potential innovation towards a conventional emphasis on automation. In this context, she concludes, managers emphasize machine intelligence and managerial control over the knowledge base, rather than spreading that knowledge across the operating workforce.

I came to similar conclusions in a study of the insurance industry that I did with Ross Koppell. We also identified a duality, but called it algorithmic vs. robust. When you are routinizing jobs and putting decision-making into the computer, you are basically developing a system of algorithms. These are rules for decision-making, necessary because computer can't think. So, if you go along the algorithmic route, you are eliminating the possibility of thinking and learning and further growth. In that situation, the best that you can do, using your computer hardware, is to institutionalize the state-of-the-art at the moment. But there is no room for further development. You have to hope that you have anticipated every possible situation because the computer can only respond to those situations that you programmed into it. That approach is very different than one that relies on human beings who can respond to situations that were not anticipated. With a robust approach, workers draw upon the knowledge they have developed over a lifetime, and their training and skills, to deal with the unexpected. Workers have the skills to make sense out of the tremendous amount of information that is produced by computer technology.

It is easy to come up with examples of this duality from my own work on the insurance industry. Many of you are familiar with these insurance company operations -- big, green campuses with buildings where the main operation is data entry. Fort Washington outside of Philadelphia is one such example. Large numbers of women come there and sit and enter data all day, working at part-time jobs with no fringe benefits. The operations are located in suburbs where middle class married women have no alternative work opportunities and are drawn into the labor force in order to perform these jobs. The other locational possibility is an area of high male unemployment where spouses are available to take these jobs. These campuses are moving out of places like Newark, where these insurance industry jobs used to be full-time employment for many women who are the sole support of their families.

Advanced computer technology plays a critical role in this scheme. These companies now have a large dollar commitment to a certain kind of technology that is deployed in a certain manner. An insurance agent takes down information by hand on an application, mails it to one of these processing centers, and someone sits there and types in the information. Exceptional cases are bounced out by the computer and sent electronically to a skilled clerical worker, the smaller number of full-time workers who are still located, say, in Newark. For a large number of clerical workers, however, there is no possibility for advancement, for learning anything on the job. Then, when you interview the insurance companies, they complain bitterly that the technology has not lived up to the promises made by vendors. They were promised great gains in productivity and wish they could get the women to type faster to

realize those productivity gains. Just think of it: all this investment in technology and the hangup is whether or not women will type faster!

In our insurance industry study I also looked at a company that was doing much better -- under duress. This is often the way it goes. This insurance company lost a contract with the American Association of Retired Persons, and that contract represented one-third of the company's business. The company had one year of notice that it was losing this contract. They looked at the options. They considered laying off one-third of the people in each department. But they decided to think about reorganizing the work and, since they already had computers, to try to reorganize the work around those computers.

This company took the alternative, high performance route. Assistant supervisor and management positions were eliminated. Underwriting and rating procedures were automated. Instead of these positions, a new and highly-skilled clerical position was designed: customer service representative. These representatives are responsible for selling insurance; manipulating the computer programs that assess risk and rate policies; explaining the rating procedures to customers; answering customer questions and responding to complaints. They are knowledgeable about insurance products and are authorized to make decisions up to a certain dollar limit. These clerical employees receive five weeks of classroom instruction, followed by three to six months of on-the-job training. Then they are encouraged to take additional insurance courses on their own time, paid for by the company. It's really a full year of training before these women are considered fully qualified for the job. Of course, the company got tremendous productivity improvements.

It comes down to this: there are a lot of ways to apply new technology. There is no technological imperative, either towards upskilling or deskilling. It depends on the choices made by individual firms. We really do stand at a crossroads in the United States. We have to make decisions that will affect our nation for decades to come. The question is: will we make the right decisions?

Wanted: Institutional Framework

I've been giving this sort of presentation for a long time, starting in 1985 for the U.S. Department of Commerce at their Human Factors Conference. At that point, I had the idea that if you just tell them how good the worker-centered approach is, how productivity and job satisfaction rises, that people would move in that direction. Now I don't think that is what is going to happen. Why is it so difficult to get the changes that we understand would benefit the economy and the workforce? The answer I come up with: there is something terribly wrong with the institutional framework in the United States. The institutional framework in our country is not hospitable to the development of high performance work organization. What we need are social and political institutions that impose constraints on profit-seeking firms, policies that protect firms from the temptation of short-term, quick-fix solutions -- while providing opportunities at the same time. Individual, rational decision-makers find it

difficult to make the decisions necessary for high performance work organization when they are under competitive pressure.

So the questions is: what do high performance work organizations need that corporate hierarchies cannot deliver, and that markets cannot deliver, or that markets find it difficult to deliver?

We can readily identify several things that markets have a hard time delivering. The first of these I call *redundant capabilities*. I will give you three examples of how high performance work organizations need redundant capabilities.

First, such organizations need redundant skill capabilities. Workers need high level skills as well as general skills. That is, workers need skills that they do not use everyday on the job. For example, work groups that operate flexibly may require that all members of the group be capable of performing the full range of tasks, including maintenance and managerial tasks as well as more direct production tasks. This system opens the possibility of workers filling in for one another when someone is ill, while keeping production and quality high. On a day-to-day basis, however, there will be many times when the redundant skill is not being used. But it is waiting for you when you need it. These are redundant skill capabilities.

However, there are several reasons why companies are often reluctant to develop redundant skill capabilities. High level general skills apply to more than one company. So if an employer invests in workers' redundant skill capabilities, another employer can easily come along and hire away the skilled workers, thereby avoiding the investment in skill development. So, if you have private profit maximizing company, they are under pressure to underinvest in skills -- to invest in the narrowest possible skills. In other words, firms cannot be certain they will recoup their investments in their workers' skills. They find that their training expenditures potentially increase the pool of skills available to their competitors. Under these circumstance, firms are tempted to limit their training to job-specific and firm-specific skills.

In order to have high performance work organizations, what you need are the broadest possible skills. There is no way, on the basis of purely market forces and narrow cost-benefit analysis, that you can justify significant investment in high level skills when these workers can be hired away so easily. This is one major problem.

Furthermore, in office industries such as insurance and banking, where the jobs being transformed by information technology are largely women's jobs, managers have a general reluctance to invest in high skills training. Women in clerical "ghettos" traditionally have received no more than a few hours of on-the-job training. Managers continue to cling to outdated notions about the work commitment of women.

There is a second redundant capability needed by a high performance work organization: decentralized competence and decision-making. If people at different levels of

the organization are going to be capable of making decisions, and authorized to do so, you have to have a lot of sharing of information and delegating of authority. And you have to have confidence that the people gaining greater authority have the skills, training, knowledge and understanding to make good, wise decisions. They may not get to make certain decisions very often, but when they do need to make decisions it had better be the right decisions. So decentralized competency and decision-making is another redundant capability. The problem is, it is hard for a manager to calculate the payoff from this sort of decentralization. How do you quantify the results? How do you convince the company accountant that this major change -- which also threatens the hierarchical and power relations in the firm -- is going to pay off?

The third redundant capability is mutual trust and loyalty. There are studies of Quality of Work Life (QWL) programs in the auto industry, looking across a number of plants in the industry, that show that the extent of trust and cooperation is positively correlated with better industrial relations and better economic performance, especially where quality is concerned. If you want to produce high quality products and services, there has to be feelings of mutual trust and loyalty between workers and managers. However, when companies are under economic stress, there is a big temptation to respond by laying off workers -- to get rid of all this QWL. Then companies go back on things they negotiated, and the union and the workers remember that lack of trust and commitment the next time around.

In the final analysis, if only market forces are operating, it is very difficult for firms to make the sort of major changes in past practices that will enable them to become high performance, participatory organizations. It is expensive and risky for a single firm to make these sorts of long-term commitments when they are under economic stress and there are no overall policies to encourage other firms to move in the same direction.

Correcting Market Failures

The second set of factors that markets do not supply to firms are cooperative relationships among the companies themselves. Subcontracting is a major consideration here. If present trends continue, we could end up with high performance work organization in a number of large companies, which then have tremendous incentive to spin off some aspects of their businesses to subcontractors with working conditions that are far worse. So the rest of us get to work for lousy subcontractors. We need to keep this possible scenario in mind.

In addition, it is not just a question of what's going to happen to workers. Unless we have cooperation among firms, it is not possible to have high quality and diversity in products and responsiveness to market demands. We know that firms make strategic alliances when market opportunities arise, and that no firm can do all its research and development in-house. So they form joint ventures and strategic alliances to respond to rapidly changing market conditions.

We also note that there are relationships between contractors and subcontractors. We have very wide wage differentials in this country. In the presence of such differentials and decentralized bargaining, it is common for large companies to say to small companies: we will subcontract with you and you will absorb much of the risk. Then if things go badly, you will lay off your workers instead of us having to lay off ours. In addition, small subcontractors compete with one another on the basis of price -- not on the basis of quality or R&D capability. And the only way small subcontractors can compete on the basis of price is if they drive down wages. In this manner, market forces tend to increase wage inequality between workers in different firms.

There is a fundamental problem here: large wage differentials and employment insecurity are not consistent with high quality, diversified production. Rather, there has to be a trust relationship between large companies and their subcontractors. It has to be, essentially, a privileged relationship in which the subcontractor knows that they are not being judged solely on the basis of price, but on the basis of quality, reliability and efficient delivery of components.

With this sort of privileged relationship between large and small companies, there has to be a transfer of technology. A narrow, proprietary attitude on the part of large companies can be very destructive. In order for large companies to be successful in world markets, they have to be concerned about investing in the small companies that supply their components and services. In other countries, workers from the parent corporation are lent to subcontractors so that both skills and technology are transferred in a systematic and mutually beneficial manner.

Markets are not going to facilitate this transfer of skills and technology. You have to have enabling institutions that promote the investment of firms not only in their own performance, but also in the capabilities of their suppliers and strategic partners. What is the incentive for a company to worry about investment in its subcontractors? Unfortunately, neither competitive markets nor corporate hierarchies are well-equipped to pursue this course.

Both redundant capabilities and strategic cooperation among firms are difficult for rational managers in hierarchical firms functioning in competitive markets to justify on the basis of their usual profit-maximizing perspective. Thus, as Zuboff and others have demonstrated, managerial choice often produces suboptimal results -- to the detriment of our entire economy and the stability of our society. As Wolfgang Streek (1991) argues in his article in *Beyond Keynesianism: The Socio-Economics of Production and Full Employment*, what is needed is investment in common, public institutions that can "protect rational motives for cooperative behavior from rational expectations of defection" and guide individual decision makers toward outcomes that, if they can be achieved, are superior even from an individual perspective.

The German Framework

I know that we cannot transfer institutions from one country to another. From the American point of view, for example, Germany is still a class-based society. We would want much more opportunity for upward mobility than people there demand or request. What we need to do is look at our country, look at how other countries are doing things, and ask ourselves: what is the path of evolution for our own domestic institutions? How can we encourage our own indigenous institutions to evolve in a positive direction? And what can we learn from other nations to facilitate that evolution?

To make this task more concrete, what are the institutions that work in Germany? If you talk to managers there, you find that they admire the American situation. They want to be able to tell workers what to do, when to come to work, and how long to work. They want to be able to hire and fire without restrictions. It is not as if German managers have really accepted worker participation. They would like to have more discretion and decision making authority in the workplace.

But there are institutions in place in Germany that prevent managers from operating in a unilateral way. In this connection, of course, the first institution is the trade unions. They have centralized bargaining at the industry level between strong trade unions and employer associations. This helps to foster cohesiveness among the major unions at the national level. The result is smaller wage differentials among workers at different levels of the firm. It also provides incentives for companies to invest in training and retraining at all levels. (If your lowest paid workers receives wages not that much less than your highest paid workers, you better make sure that the lower paid workers are highly productive, and that means extensive training throughout the organization.) It also undercuts the ability of firms in times of difficulty to adopt cost cutting strategies that rely upon driving down wages, while encouraging them to concentrate on measures that improve labor productivity as well as the diversity and quality of products.

A second important factor in Germany is employment protection. Major industrial restructuring does occur there. Employment protection does not mean that, when faced by a shrinking industry, firms cannot unload workers. What it does mean, especially with the most technologically progressive employers, is that there are incentives for firms to take actions that improve internal flexibility. In Germany, ordinary workers have access to significant severance pay if displaced. It's not that you cannot fire front line workers, but that it's expensive to do so. Firms therefore look at their options: does it cost me more to retrain this worker or fire this worker? Often they conclude that it is more expensive to fire the worker. So many firms have major retraining programs for their incumbent employees.

Co-determination is another important institutional mechanism. This is a set of legally-binding rules that require managers to negotiate with workers over a whole variety of what are considered to be "management prerogatives" in the U.S. This ties into my point

about decentralized competence and information as a redundant capability. Managers complain bitterly about the hours they have to spend getting a consensus among their workers so they can go forward and do what they want to do. If they cannot get a consensus, they have to go back and revise their original plans in the light of the negotiations. Although the more enlightened managers are in favor of co-determination, there is a lot of complaining about it. This system requires, by law, that all kinds of discussions take place that would not have occurred otherwise -- and cannot readily be justified on a strict cost-benefit basis.

Of course, there is also a well-established trade union movement that represents worker interests and helps to narrow the wage differential. The unions negotiate differences and make decisions with respect to labor-management cooperation. In addition, the German trade unions explicitly pursue improvements in workplace democracy and the quality of work life. They are always pushing the government in the direction of adopting laws that increase workplace democracy. (The idea that you leave your civil liberties behind when you enter the factory or the office door is something they are struggling against.) As a result, collective bargaining agreements and union-inspired government programs with mandatory job enrichment requirements have impinged on management decisions in the areas of work organization and job design. This has contributed to a pattern of jobs that are broader, less fragmented, and less routinized than would otherwise be the case.

National Standards

A key institutional factor is Germany's system of nationally-standardized occupational profiles. This covers 400 occupations and is closely linked to their national system of firm-based vocational training. This system of national standards is quite decentralized. Despite what you may have heard, there are no national exams that you either pass or fail. There is a national course of study with a standardized body of knowledge that is considered to be important for particular occupations. Then there are exams at the end and the tests are administered in a decentralized manner.

For example, to become a secretary in the institute where I worked in Berlin, you need to have three years of apprenticeship training. You might wonder what you learn as a secretary in three years of apprenticeship. To build in redundant capability, they learn many valuable things that they may never get called upon to do. All of the secretaries are fluent in at least two languages. So, if I needed a book in English, they could find out whether or not the book was available in English and then access all of the libraries in the area. This task was part of their training. If I needed a telephone number anywhere in the United States, they knew how to get it. These are skills that they do not call upon every day, but are very important in their overall jobs.

In industries like banking and insurance, vocational training slots are so competitive that students do not leave school at 16 to enter these positions. Rather, they are more likely to go until the age of 19 and get an "Abitur," the credential that you need to go to the university,

and then apply for the apprenticeship. The "Abitur" is equivalent to two years of college in the U.S.

The final feature of Germany's institutional framework that I will cover relates to big and small firms. There are regulations that protect small firms. There are lines of businesses that large firms cannot enter. Small firms are required to belong to quasi-public trade associations. The result is that large companies are not able to play off the small firms against one another as they do in the U.S. Small companies have a body that speaks for them and represents their interests in negotiations with large firms. So, empowerment applies not only to workers through their unions, but also to small firms through these quasi-public organizations.

Back In the USA

Let me conclude by making some points about our impoverished institutional framework here in the United States. What kind of things do we need?

First, we need a stronger trade union movement, a point that I will not belabor here. There is substantial academic research showing that unions, in fact, play a positive role in industrialized countries that cannot be played by any other institution. The fact that unions provide some level of participation for workers, and provide an alternative to workers having to leave the firm if they are dissatisfied, is a positive force in economic development. These points are made very well by Richard Freeman, who has updated his research for a 1992 book published by the Economic Policy Institute, *Unions and Economic Competitiveness*.

An important development on the horizon is a rising debate in the U.S. Congress about fundamental reform in our educational and job training practices. The next few years will witness legislation and active discussion of issues such as national skill standards for occupations and industries. It is important, as these proposals emerge, to maintain decentralized implementation and strong local initiative. Change is not going to come through further centralization of power and control. Participation of workers and unions in an industry, as well as firms, in developing these standards is essential to guarantee that skills will be defined broadly and not narrowly.

There are some excellent ideas being floated at this time. One of those concepts is the establishment of a voluntary, national system of occupational skill classifications and certification, with an ongoing joint process of labor, education and business interests setting standards at the industry level. Legislative proposals in Congress will advocate comprehensive approaches such as a nationwide system to ease the school-to-work transition of young people not bound for college. A network of youth opportunity centers for high school dropouts is being considered. These moves are very positive.

The legislative initiative I view as controversial is the establishment of partnerships between businesses and educational institutions to provide advanced technician training. As I

discussed earlier, this sort of system has had negative implications for France. All this does is create an intermediate group of workers -- continuing to deskill workers at the bottom, further separating management and worker duties, and having a class of technicians who are doing a little bit better. Essentially, this initiative intensifies the negative aspects of the status quo.

It is critical to establish mechanisms that will provide information and technical assistance to businesses that are committed to restructuring in the ways that we want. In my mind, anything that reduces the cost of businesses moving in this direction is positive. Serious consideration should be given to establishing a high skills training fund at the national level. Businesses that do not provide a certain level of training for their workers might be required to pay a tax, with revenue going into that fund for redistribution to the states to give loans and grants for training.

Achieving even a few of these institutions would begin moving the country in a high skill, high wage direction that would benefit generations to come.

7. Unions: The Key to Worker Empowerment

**Markley Roberts, Assistant Director
AFL-CIO Economic Research Department**

The first point I want to make is that there is a future, and a very good future, for the American labor movement. To a great extent, that future is based on the continued desire among working people for dignity and respect on the job. As our workforce becomes increasingly female and minority, the people who are most likely to be the victims of harassment and discrimination are going to see the need for union representation. In addition, we tend to minimize the appeal that unions have for white collar workers -- the professional, clerical and technical workers whose union membership has expanded in recent years. Many of these white collar personnel work in large, impersonal bureaucratic organizations where they are fully aware of the arbitrary actions of management. Ultimately, unions are good not only for employees, but also for employers and the entire national economy.

In years past it was mainly the shock effect of aggressive unions pushing for higher wages that encouraged employers to install pieces of cost-cutting, high productivity equipment. As time goes on, however, I think there has been more of a general awareness of the function that unions play in sharing decision-making, especially about the way in which work is done. Some employers recognize that they are going to be more efficient and productive in they get input from their workers. And the only way for that input to come through in an honest and unconstrained way is if workers feel job security, if they feel that they are not going to get kicked out the door if they disagree about the way things are being done.

Anyone who is involved with unions recognizes that there is a tremendous amount of management hostility out there. One of the most telling facts is the growth of the union-busting business over the past 15 years. From a mere handful of union-busting consultants, we now have something like 500 or 600 who are getting millions of dollars from employers to either kill off unions or avoid being organized in the first place. As we talk about labor-management cooperation, we should keep in mind the background context of hostility that has dominated industrial relations in our country for many years.

There are two points that are particularly relevant to this conference. The first issue concerns training, a clear and direct concern for union members because it is one of the ways in which our people move onward and upward towards higher wages and a greater degree of job security. The second concerns "worker empowerment," a bit of jargon that is used more and more frequently these days. The only real meaningful worker empowerment comes through unions -- through union representation and collective bargaining. What is new about the current situation, I believe, is that more and more enlightened employers are recognizing that empowering workers is the key to achieving a high performance, high commitment workplace.

Advanced technology plays an important role in both these issues of training and worker involvement. Clearly, technology is most effective and productive if it is used to enhance human potential. But technology is a double-edged sword. It can result in the dumbing-down of jobs and the de-skilling of workers. It can be used to eliminate jobs. On the other hand, it can be used to produce highly skilled jobs that broaden the scope of workers' jobs and result in upgraded skills. There are critical choices to be made, and those choices will have a major impact on the level of training in a firm and its approach towards worker involvement.

I remember the time when the response to technological change was to "red circle" individuals, to protect their rate of pay if their job classification was lowered. That approach, it seems to me, is not adequate; it has its place in some situations, but it represents a form of protectionism. It is through the process of ongoing education and skill training that workers have the opportunity to move into the highly skilled jobs that are created by technological improvements.

The design and implementation of technology is not determined by impersonal forces. It is determined by people, with the perspective of employers guiding the way in most instances. Where a union exists, it is clear that the union has a responsibility to help ensure that the technology is implemented in a manner that enhances human potential and broadens the duties of workers. Training is essential here. Unions have a responsibility to force employers to provide the education and training that is necessary for workers to have the opportunity to use higher level skills in their jobs.

Training, of course, costs money. Larger employers are more capable than smaller employers in making these investments. The employers who do not make these investments are the ones who are going to rely upon part-time, temporary and contingent workers -- the most exploited and downtrodden members of the workforce. Unfortunately, these contingent workers are also the most difficult to organize because of the constant turnover. We need to keep this growing division in the workforce in mind, not only doing what we can to organize the unorganized, but also helping to ensure that permanent, higher paid workers get a fair share of the benefits that should flow from high technology and work reorganization.

As for the term "empowerment," it can mean a lot of different things to different people. To me it means greater democracy in the workplace. In the European Community, it means a social compact that includes wage standards, safety and health provisions and the establishment of labor-management committees in all firms. These are the kinds of things we would like to see in our country, not only for workers but for the benefit of our entire economy and the stability of our society.

We have a lot of evidence in this country of the advantages of joint labor-management training programs that are negotiated through the collective bargaining process. Many already exist in the auto, steel, telecommunications, mining, and public service industries. There is a

tremendous amount of positive experience here with funding being provided through cents-per-hour contributions.

Finally, it is important to keep in mind that the goal of worker empowerment is not only to have input into employment and training programs, but also to obtain more labor participation in higher level strategic decision-making in the firm. This theme is covered well in the 1984 book, *The Transformation of American Industrial Relations* (Thomas A. Kochan, Harry C. Katz and Robert B. McKersie), as well as a recent volume by Paul Weiler, *Governing the Workplace*. Both of these books document management hostility to these ideas and the problems that unions have encountered. There is a great opportunity here for labor to play an increasingly important role in the revival of our economy at the level of the individual company. In the final analysis, what is good for the American people, good for the union members that we represent, is also good for transforming American businesses into high performance organizations.

8. A Participatory Perspective on Technology and Work Redesign

**Dr. Carol J. Haddad, Research Fellow
College of Urban, Labor and Metropolitan Affairs
Wayne State University, Detroit**

In order to craft a worker-centered agenda for high performance workplaces, we need to understand the profound changes that are taking place in the ways in which work is performed. Issues of technological choice, job design and work organization are integrally related to skill development and learning systems. These linkages become evident when we examine trends in the work practices and processes across a wide range of industries. In manufacturing, Fordism is out and flexible, lean production is in.

The use of computer-controlled technologies, the integration of operating units and the increased reliance on multi-skilled employees are cornerstones of the new production system. This paradigm extends to the service, office and public sectors as well, where information technologies and similar human resource management trends all add up to the same bottom line: lower production costs and improved responsiveness to changing market conditions. This "bottom line" orientation deserves critical scrutiny.

A good place to begin this examination is to look at the current push for quality. Suddenly, everyone has discovered the importance of quality -- in services, products and processes. It is important to recognize, however, that approaches toward quality improvements differ greatly among countries and firms. In Sweden and Norway, quality is promoted through socio-technical work systems with a distinctly democratic character. Work groups have high levels of autonomy and decision-making authority on a wide range of decisions concerning production operations.

In the Japanese-style system that has been adopted by U.S. firms, quality objectives often clash head-on with worker autonomy. The range of decisions into which work groups have input is typically limited to issues surrounding the immediate work process, toward the end goals of improving quality and efficiency. Information flows from the bottom up, but not necessarily from the top down, as decisions about product design, selection of raw materials and parts suppliers, and other issues critical to quality are made in a centralized and traditional manner. Individuals and teams are expected to follow work process sheets without deviation, and within strict time limits.

In short, while technologies and work systems have advanced, U.S. management practices are deeply rooted in the old Tayloristic model. Instead of moving toward the "high performance" model that Ray Marshall described earlier today, many firms take a piecemeal

approach to work restructuring -- sprinkling in the ingredients that suit their particular recipes. While lip service is paid to concepts like empowered workers, cooperative labor-management relations, and healthy workplaces, the "lean production" model suggests that any such changes are merely means to an end -- the bottom line goals of improved quality and productivity.

This popular model views work restructuring in a linear and mechanistic way, an equation in which empowered work teams + technology + flexibility = higher quality & productivity. A better way of envisioning change is to think of a work system as an integrated circuit or a large tapestry. If you disconnect one piece of the circuit or you unravel one thread in the fabric, the whole system falls apart. This model presumes that each piece of the system has value, and the delicate interrelationships among each component must be taken into account before altering the whole or its parts.

In the same way, the introduction of new technology or other work process changes must recognize and value the skills of each employee and of the organization as a whole. This method is not "quick fix", but rather long-term and evolutionary. It takes time, training, investment in human capital, and it takes human-centered approaches -- from the design of technology right down to the operations level.

What is required to translate this human-centered paradigm into functioning workplace systems? The fundamental principle is that change has to be nurtured through processes that are participative in nature and form. This not only implies, but demands a strong union role, for if change is to be *truly* participative, partnerships among equals are needed. Unions must be thought of as assets to this process, not as obstacles. Unions are seldom given an opportunity to have early input into restructuring decisions because it is assumed that they are only going to oppose the changes, so there is little point in giving them early warning.

A few years ago, I conducted some research on the introduction of technology into a jet engine assembly plant. I set out to investigate how technology affected skills, and yet as the study progressed it became clear that it was not merely the technology, but the entire process of implementation and decision-making that affected skills. Although the workplace was unionized and the company complied with the contractual requirements of advance notification, only 15% of the employees were given not only notice, but also an opportunity for input into decisions about the selection, installation and programming of the new technology.

Clearly, then, workers and their unions need to have a wider scope of authority and a broader mandate for involvement in the whole process of workplace transformation. There is a window of opportunity here, especially in connection with training strategies, which is what this conference is all about. Through the exemplary work of the AFL-CIO Human Resources Development Institute and many of the unions represented in this room, unions and joint labor-management committees are developing programs and training criteria designed to ensure that vendors of training deliver the goods.

Another interesting development in manufacturing is the notion of concurrent engineering. In a sense, this represents an early warning system for unions on technological change. In the past, it had taken years to move a product from the design stage to the prototype and build stages. Now the push to link engineering and manufacturing operations is providing opportunities for shop-floor input into process design early on. The validity of worker contributions to technology design is perhaps best illustrated by a bit of graffiti I saw a few months ago in a London subway station. It said: "Noah's Ark was designed by an amateur. The Titanic was designed by an expert!" But in order to seize this opening, and to make sure that this input is used in appropriate ways, strong and proactive union leadership is required.

The use of cross-functional work groups is yet another dimension of work restructuring that offers potential for a human-centered model. Unfortunately, most often their function is limited to horizontal information-sharing across production, engineering and supervisory units, or in the case of public school teachers across subject area disciplines. What is needed is an expansion of communication and information-sharing in a vertical direction, with people at lower levels of the organization obtaining from upper management the information and resources needed to work effectively and participate in all manner of decisions.

The labor movement can seize the initiative by doing what unions do best: engaging in education, research, collective bargaining and influencing public policy. Canadian unions have been extremely successful in the research and public policy domains concerning technological change and training. In Ontario, unions successfully lobbied the provincial government to fund union-conducted research on technology impact. It should be noted that this multi-million dollar concession was won *before* the New Democratic Party government was elected into office. The importance of union-sponsored research should not be underestimated -- it plays a vital role in informing the union's education, bargaining and policy efforts.

In this country, impressive research and educational efforts have been undertaken by the Machinists Union at their Placid Harbor Education Center; the Communications Workers with their comprehensive leadership training course on technological change; the Bakery, Confectionery and Tobacco Workers, working through their ongoing Technology Task Force; and many others. The notion of integrating courses on technological change into union leadership development programs is a welcome and much needed effort. Extending union influence over technology through the collective bargaining process is also important. Many contracts provide for advance notification of technology introduction, but unless labor is vigilant, these provisions serve as little more than *pro forma* announcements after all significant decisions have been made. An interactive process of research, education and collective bargaining is the key to ensuring that union officials become fully involved in technology decisions. The more that union leaders at all levels are educated about the dynamics of new

technology, the more comfortable they will be when sitting at the table with system designers.

Finally, public policy remains an important arena for strong labor involvement. Unions must continue to be engaged in national-level discussions about technology development and transfer and the future of defense-related industries. In summary, as we set out to make institutional change and advance our public policy initiatives, we can learn from the street wisdom of a bumper-sticker message: "Think Globally and Act Locally." There are many things that we can do immediately at the plant and office level, in companies big and small. If we think strategically and act locally -- at the workplace level -- we can indeed move forward in our quest to create human-centered, high performance work systems.

9. Preparing for the Future Through Apprenticeship

**Raymond J. Robertson, Executive Director
Apprenticeship and Training
and
General Vice-President, International Association of
Bridge, Structural and Ornamental Iron Workers, AFL-CIO**

As Mike McMillan said in his introductory remarks, he is a brother member of the Ironworkers International Association. On many occasions, he and his staff have helped us out on matters pertaining to training and we certainly appreciate that assistance from the AFL-CIO Human Resources Development Institute (HRDI).

I would like to take a few moments to explain what affiliated local unions of the Ironworkers are doing relative to training. Much of what I will talk about relates to other international unions in the building and construction industry. These activities involve not only apprentices and journeymen, but also the instructors that teach our members. There are also special programs and seminars which involve foremen, superintendents and others.

Most of the apprenticeship programs in the construction industry require three, four or five years of on-the-job training and related instruction before an apprentice is eligible to become a journeyman. Apprentices who already possess certain skills, however, may achieve their journeymen status sooner -- as determined by the local joint apprenticeship committee (JAC), which consists of an equal number of management and labor representatives. Most JACs also conduct journeymen upgrading courses. It is essential that journeymen continually return to school in order to learn all of the new technology being introduced in that particular industry or occupation.

Before any committee can offer training, it is necessary for their instructors to be highly qualified to teach the various subjects, especially related to new technologies. This is accomplished by holding special training programs for instructors. The Ironworkers national trust fund, for example, conducts an annual instructors' training program at the University of San Diego. There are 34 courses offered. Every instructor must go through professional courses which include the proper teaching methods, how to set up classrooms, how to use training aids and equipment, and other topics. These courses are taught by highly qualified university and college professors. In addition, technical classes are taught by ironworker committee coordinators as well as experts from various companies. Lincoln Electric Company, for example, sets up all their latest welding machines, some of which are prototypes. Instructors have the opportunity to actually try out these machines and learn

everything about them. This program also covers hazardous materials, lead hazards, and asbestos abatement.

Upon completion of the 80-hour course, our union instructors are certified to teach ironworker apprentices and journeymen in their home areas. They are ready to incorporate new curriculum into their local classes. We are also talking to the University of California at Long Beach about the possibility of our instructors receiving college credits for the courses they are taking each year. Although the arrangements have not been finalized, we see this as a very important development.

We have also implemented training seminars in the United States and Canada for foremen and superintendents. Seven topics are presented at these seminars, which are held on Saturdays. The objective is to give foremen and superintendents the knowledge they need to run a job more efficiently for the contractor. In addition to hiring apprentices, foremen and superintendents serve as the direct link between the employer and the worker on-the-job.

Another program, one that we believe will become very big in our organization, concerns the National Ironworkers Welding Certification test. Our goal is to make sure that every ironworker passes this certified welding test, ensuring that they will be able to weld anywhere in the United States.

National welding certification is very important, partly because of the high cost of the test. Over the years we've had problems with different state codes, city codes in some areas, and the need for ironworkers (and other crafts) to recertify for a particular job. In fact, on some power plant jobs, where ironworkers are employed by one company after another on the same job site, we've had the same welder recertify six to eight times. This testing represents a great cost to contractors and affects the employability of welders. If this national certification arrangement works out, an ironworker who is unemployed in, say, Washington, D.C., could go to Denver or Wyoming or Missouri or anywhere else and be eligible to go on a job and start welding. Their certification would be recognized nationwide.

The committee overseeing this program includes representatives of the American Welding Society, Edison Electric Institute, National Constructors Association, and several national ironworker associations. Because we have members in the United States and Canada, the committee also has a representative from the Canadian Welding Bureau. We hope to work out a reciprocal agreement that will allow ironworkers to work at jobs in both countries.

The building trades international unions are continually developing and updating curriculum and video training modules. I wrote my first set of training manuals in ornamental iron work back in 1965; they were published around 1966. Since that time, the union has produced about 16 manuals and almost 100 video training modules. These have been

developed in concert with local unions, JAC coordinators, and others in the industry. Management is always involved and it works out very well.

What about hazardous material training? Government agencies have designated some 30,000 hazardous sites. It will take many, many skilled workers -- ironworkers, carpenters, boilermakers, and all the other crafts -- to work on a lot of these jobs. The work on these sites goes far beyond just digging up drums and burying them somewhere. They are constructing metal buildings, all kinds of tanks, and other structures. Why are these necessary? One of the reasons is that a lot of the states will not let trucks and trains pass through with hazardous material. So you have to build something to dilute that material and prepare it. In Terre Haute, Indiana, for example, there is a billion dollar project that almost amounts to the construction of a refinery to dilute some very dangerous gases. There the job is to do all the erection and later tear it down.

So there is a lot of construction work on hazardous material sites, and no one can get on these jobs unless they have been certified. Workers have to go through a 40-hour course and teachers have to have an 80-100 hours course to do the instruction. We are building up our qualified work force and by 1992 expect to have thousands of our members certified.

These are some of the things we are doing to develop a capable, highly-skilled work-force and prepare for any work situation coming up in the future. The most important point here is that we are ready to meet the manpower requirements of the 1990s and beyond. In fact, we are better equipped than ever before. There is a lot of talk out there about a lack of skilled workers. We certainly don't feel that way. We are ready, we can expand, and we are preparing for anything that comes along.

10. The Role of Labor Leadership in Workplace and Education Reform

**By Paul F. Cole, Secretary-Treasurer
New York State AFL-CIO**

I would like to thank Alan Kistler and Mike McMillan for the invitation to speak here, and congratulate them and the staff of the AFL-CIO Human Resources Development institute (HRDI) for sponsoring a conference on a very important and timely topic. Essentially, that topic is the link between high performance workplaces and the responsibility of education and learning systems. Ray Robertson of the International Association of Iron Workers has talked about a number of the aspects of registered apprenticeship programs in the building trades. As I go through my remarks, we can see that the kinds of things that Ray talked about are the very same principles that need to be extended into all areas. I have some contributions to make to this discussion, but I know that the real experience and expertise is sitting out there in the audience.

Based upon the audience and the speakers you have heard so far, I want to make a few assumptions. First, recalling Ray Marshall's keynote address, I assume that everyone here has a basic understanding of the nature of high performance work. We know that it varies from sector-to-sector, but that many of the essential ingredients are the same. Second, that everyone has a sense of what skills are needed to function in a high performance work environment. Third, that everyone recognizes the need for both management and unions to change, especially the relationship between those two, and that this process has major implications.

My fourth and final assumption is that everyone here has a pretty good grasp of the role of the increasingly complex and competitive global economy. The pressures of this environment provides an incentive for companies -- companies of all sizes and in all sectors, not just large manufacturing firms -- to move to high performance work organization. Unfortunately, as we know all too well, most companies have yet to realize the importance of this transformation.

There are two questions I want to focus on. The first is: how do we get from here to there? What do we have to do to create a system that will produce a world class workforce, including both current and future members of that workforce? I come out of the secondary education system and the American Federation of Teachers (AFT), so I spend a lot of my time looking at what we need to do to restructure schools. Many of the principles involved in school reform can be extended to workplace education and training programs.

The second question is: what is the role of the labor movement in bringing about this change?

The High Performance Path

On the first question, a good reference point is the report on *America's Choice: High Skills or Low Wages!* We know from that document that too few companies are pursuing a high performance, high skill, high wage path. Too many employers say: "Why should we get excited, there's really no skill shortage out there. We really don't have any obligation or responsibility to change education and training programs so that people have these high performance skills."

The real issue is whether we are going to just follow the trend lines, or lead them. Some people look at trends and see jobs going to the service sector and say we should just prepare people for that. I argue that it ought to be the other way. Our responsibility, particularly in the labor movement, is to lead trend lines. That means creating a world-class workforce that will both encourage employers to move in the direction of high performance work organization, and enable workers to succeed in that context. There is some evidence that this dynamic has happened in Europe where you have highly-skilled workers who have provided the incentive for employers to move to new work systems. Certainly, if we don't have a workforce with these capabilities, employers will be unable to move in that direction and have no incentive to do so. From both a policy standpoint and a workers' perspective, we really have no choice but to prepare the workers of tomorrow and the existing workforce with world-class skills.

Of course, the nation needs to address macroeconomic issues, which is really outside the scope of this conference. We need to have an economy, and supportive public policies, that are going to create good jobs. Government and employer leadership is needed to move enterprises towards high performance work settings, irrespective of the sector or the size of the company.

Although we have many good programs for students and workers, the fact is that they are woefully inadequate when taken as a whole. Our publicly-funded training system primarily operates at the margins of society and is targeted towards selected populations. I agree, of course, that those most in need deserve special attention through programs like the Job Training Partnership Act (JTPA). But this targeted, very limited approach has been a major public policy failure for the United States. To compete effectively in the world economy, what we really need is a comprehensive and a well-coordinated education and training system for all present and future members of the workforce. A simple array of programs is not adequate. We need a system in place to upgrade the skills of all workers in this country.

What would that system look like? From a public policy perspective, the answer to that question is beginning to take shape. We are not there yet. It's kind of like blaming the polliwog for not being a frog. There are a lot of activities moving in that direction. Our nation is gradually developing a consensus on these issues. Such consensus begins, really, by

agreeing upon some key principles. Some states are providing key leadership in this regard. Places like Oregon and Kentucky are moving ahead rapidly on these agendas.

Tackling the Key Issues

There are four or five issues that really need to be addressed here. The first issue clearly is the one of standards. Companies must embrace world-class standards to succeed. And in the new economy, students and workers must have knowledge and skills at world-class levels, equal to or better than the best in the world.

Standards are key to the success of the apprenticeship programs in which Ray Robertson and others have been involved for many years. They have consistently defended those standards from efforts to water them down. If we want world-class skills, the maintenance of high standards is the key ingredient for a successful program. Outside of those joint apprenticeship programs, the United States is near or at the bottom, in comparison to other industrialized countries, on virtually every measure that we have.

A number of efforts are currently underway to address that issue, but they are basically "works in progress". A lot of work has been done, for example, by the American Society for Training and Development. The effort that I'm most familiar with is the Secretary's Commission on Achieving Necessary Skills or "SCANS." The first major report is available: *What Work Requires of Schools*. Please take some time to read this if you haven't already. This document is the result of Phase I of SCANS. The work is unfinished and the Commission will continue until February 1992.

Basically, the Commission is working to identify the skills and the qualities needed for high performance work, both for current jobs and projecting into the future. The SCANS report breaks down these skills and qualities into two parts.

The first part, the "foundation," are enabling skills. They include basic skills -- reading, writing and mathematics -- but are defined more clearly here because we are talking about levels of proficiency in different types of reading and writing. These basic skills also include listening skills and speaking skills.

A second component of the SCANS foundation skills is the whole issue of thinking and reasoning skills. A tremendous amount of good research is now going on to identify those thinking skills -- decision making, problem solving, reasoning skills, knowing how to learn, and so on. These skills have been identified and can be learned. People aren't born with thinking and reasoning skills. When Sue Berryman of Columbia University analyzed high performance work on the one hand, and then analyzed higher order thinking skills on the other hand, she found a stunning correlation, namely that they are essentially the same. The characteristics of higher order thinking and the requirements of high performance work are essentially the same.

The third foundation area, the one that we most frequently hear about from employers, is the one of personal qualities -- individual responsibility, self-management, honesty, integrity, and so on. These are the foundation areas, SCANS argues, upon which skill training programs should be built.

Five Competencies

Built upon these foundation skills are a series of five "competencies," or what workers should have if they are going to function effectively in a high performance work setting. First is the whole issue of resources and how you manage them. How do you manage time and money? How do you manage materials and facilities? How do you manage our own personal human resources on the job? And so on. If you are functioning in a Tayloristic environment, you don't have to make those decisions. But if you are in a semiautonomous work team, you have to make judgments on resource matters and you have to have the necessary skills. And there are ways to teach those competencies.

The second broad competency area is concerned with interpersonal skills, the ability to interact with others. At the top of the list here in teamwork, a prime characteristic of most high performance work settings. There are identifiable and teachable skills involved in effectively functioning as a member of a team: leadership skills, negotiating skills, certainly working with diversity among members of the team.

The third general competency area: acquiring and using information. How do you organize and evaluate data? As Ray Marshall frequently puts it, this is "bringing order out of chaos." How you interpret information, how you process information -- these tasks have become critical, especially with the explosion of computerized technology in the workplace.

The fourth area concerns understanding systems. If you work in a more complex and complicated and interactive work environment, you need to understand and manipulate the system. You need to be able to design systems and improve them. There are ways that can be done. Students can learn how, workers can learn how, and this ought to be part of the whole education and training agenda.

The fifth competency is the arena of technology. Workers ought to be able to elect the appropriate technology, to apply it, and be able to evaluate it.

These eight components of "workplace know-how" must all function together. To work effectively, a person in a high performance cannot just learn one. If you look at most high performance work settings, it is the combination and the integration of all those things that is critical to success.

The next issue is to establish proficiency levels. SCANS also wrestled with this question, and in its first report talks about five such levels. The first is preparatory, something that a secondary student might have. Level two is the work-ready level -- the minimum

needed to enter into work. Then you've got intermediate, advanced, and specialist. The report talks about certificates and degrees and specializations. Time does not permit a treatment of these issues.

Ongoing Research

Again, let me emphasize that this is still a "work in progress". SCANS is overseeing research on some 50 jobs to look at what they entail. Once scenarios are developed for those occupations, it is not going to be a static document. As occupations change, the skills required will change, so we need to have some kind of system in place that will monitor those changes and make sure that whatever education and training programs are developed teaches the new skills as they emerge and evolve over time. This initial SCANS report is the beginning of an ongoing process, not a silver bullet.

SCANS has also created a couple of subcommittees to move into other arenas. Gary Watts of the National Education Association (NEA) and I chair a subcommittee on how you teach these skills, how students learn, and what are the implications for educational programs. This topic primarily concerns schools, but affects workers as well. There are huge implications for contextualized learning, active learning, collaborative learning, and many other areas. Most schools and most teachers now rely on didactic techniques, as do a lot of training programs. To a large extent, I would argue, a school with a high performance learning system would mirror a high performance system in the workplace.

A second subcommittee, led by Lauren Resnick of the University of Pittsburgh, is looking at how you assess all these things. We know we can't evaluate teamwork and problem solving effectively with multiple choice tests. So authentic assessment really talks about a whole new system of assessment that most people now call the three "Ps": performance, portfolios, and projects. We need to have a system in which we actually know what people are able to do and what they know. And this has to be integrated into the K-12 system and beyond. There is a consensus emerging that the nation needs a voluntary, national system of authentic assessment. Though there are difficult issues to be resolved in this area, work is moving along quite nicely.

Once we are able to assess skills, we will then need a credentialing system. As far as I'm concerned, one of the best and most reliable credentialing systems is a journeyman's card, so we need to look carefully at the success of apprenticeship programs. Ray Robertson talked about welding and how it's very important for people to be able to go anywhere in the country once they get their certificate. We're talking about nationally-recognized, portable certificates that are set at world class levels. We need to expand credentialing into a system that affects elementary and secondary schools and beyond.

The America's Choice report addresses the issue of credentials, proposing a certificate of initial mastery that young people would achieve at or about age 16. But we cannot end

there. We need a system of technical and professional certificates in numerous fields that will tell an employer that this worker, in fact, can do certain things. Right now a high school diploma doesn't tell an employer anything. We are talking about something more like an eagle scout system. If you have an eagle scout walk in the door, you know that they have met the standards of tenderfoot and second class and first class. Knowing that their badges are performance-based, you know exactly what eagle scouts are able to do and what they know in specific areas. Generally, we need to have a meaningful credentialing system below the baccalaureate level.

The next issue is one of structure. How do we do all these things? We need to fundamentally restructure the delivery system now in place, including the K-12 system, and create high performance learning environments with active learning and learning in context and other aspects of education reform. The people in schools need to know about the nature of high performance work so they can prepare kids for it, while employers need to understand what's going on in the schools so that they can help. The SCANS report talks about two ships passing in the night, one using Morse Code and the other using Signal Flags. This is one of our great problems -- trying to communicate between our education system and the workplace.

Of course, when it comes to worker education and training programs, there is no real system out there besides the apprenticeship system. Some states are working on this problem as well.

The other issue, of course, is the need for what some people call a second-chance system. This is largely where our current federally-funded employment and training program is now focused -- school dropouts, dislocated workers, displaced homemakers, the unemployed, welfare mothers, and so on. Most reports conclude that current programs only serve five to 10 percent of all JTPA eligible recipients. That's ridiculous. We need to do better job here.

None of this can be accomplished unless we have a new social contract to make sure that people have the ability to succeed. It's not going to do us any good, as the early education reform movement did, to raise the bar and then demand that people jump over it without providing the resources to increase their capabilities. It is not enough to set national goals. People have a right to be able to succeed in employment and training programs. Now we are failing miserably in both our education system and, by-and-large, in our employment and training system. Unless we are willing to make, as a nation, a commitment to a new social compact, to the supportive infrastructure that people need, all of the things we are discussing are not worth the paper they are written on.

The Role of Organized Labor

In summary, basically what we need is a comprehensive and coordinated education and training system that clients can enter and leave at any point. There is no reason that a dislocated worker should not be able to enter this system at a secondary vocational school. We need to look at the whole delivery system and bring to it some coherence and coordination. Then you can eliminate the barriers of access to people who need to enter those programs.

Another major area is the challenge to organized labor. I will not get into all of the details, but make reference to a terrific book by Tom Rankin that is entitled: *New Forms of Work Organization: The Challenge for North American Unions* (University of Toronto Press, 1990.) The author is a senior consultant at the Ontario Ministry of Labor. We need to recognize that the rules have changed and that the survival of the enterprise and the workers is inextricably linked. As you all know, things are different from 30 years ago when we had mass production systems and a large stable domestic market, so we didn't have to worry about competition. Both management and union leaders must understand the implications of the changing world in which they live.

Dealing with that realization is going to take some vision and courage on the part of labor leaders. We are going to have to be risk-takers. Some of the people who have been risk-takers have gotten their heads chopped off, so it's a difficult task. It's easy just to develop a bunker mentality, act in a defensive manner, and manage to get re-elected. If labor continues on that path, we will continue to see a decline in the segment of the private sector that is organized in this country. Some predict that by the year 2000, we are only going to have five percent and labor will cease to be a major institution.

Tom Rankin makes some relevant points here. He cites the experience of a chemical workers local union and Shell Sarnia in Canada. He examines the relationship between unions and new forms work organizations through the lens of a single, yet very significant local: the Energy and Chemical Workers Union, Local 800.

He argues that for economic, social and technological reasons most unions will face new forms of work organization sooner or later. No matter where you are, you're going to get it. Therefore, you need to develop an independent union position concerning work reorganization. That is really one of the most pressing yet most promising situations that unions face today, Rankin argues. The main concept here is that unions just don't react to what management does, but develop an independent vision, something of their own to bring to the table. The position must include the union's vision of contract language for the post-Taylorist future, as he calls it, and the development of union competence in making that vision very concrete.

We must enable unions to relate to new forms of work organization, Rankin proposes, in a manner that strengthens the bonds between workers and their unions -- and strengthens the connection between the workplace and larger societal changes. This is the same argument we in the AFT used when the *Nation At Risk* report hit in 1983. How do you respond? Do you hunker down, adopt a bunker mentality, and say "no," just give us more money and we will solve all the problems. We said, you are right, we've got serious problems and kids aren't learning, but teachers are not the problem, they are the solution. We began to look at some very risky ventures. Compared to how he was viewed in the 1960s, AFT President Al Shanker is seen as an educational statesman now, a national leadership figure. Because of this the AFT has been able to shape the national debate to some extent, so we have something to brag about there. But it did not come easily. It meant that there were some conventions and executive council meetings with an awful lot of debate over altering the work environment and changing the traditional role of the trade unions.

Rankin also says that the unions really have to understand the shop floor implications of these new forms and their challenge to conventional unionism. There are possibilities and limitations to an effective union response. Based on the experience of this chemical workers local, he concludes that the new post-industrial form of unionism is strong and independent, and that these characteristics are mutually reinforcing to new patterns of work organization. He talks about the role of the collective bargaining agreement and the need to have one. But he also talks about a different model -- a handbook for good work practices which serves as the basis for continuous negotiations on the role of the company and the union, their joint philosophies on work reorganization and how it all plays out. Overall the book shows how one local responded institutionally and organizationally to the new work environment.

In the final analysis I am hopeful if not optimistic about both creating systems to develop a world-class work force, and our ability as organized labor to respond.

Let me finish with a story that I think will sum it up. It's about two signals off the coast of Maine one night. It was a very foggy night, very difficult to see, and one radio signal went out: steer 15 degrees north or we will have a collision. The responding signal came back: No, you steer 15 degrees north or we will collide. The response came back: This is Admiral Richardson, steer 15 degrees north or we will have a collision. After a second the response came back: Sir, this is Seaman First Class Jones, respectfully requesting that you steer 15 degrees north or there will be a collision. Then the response came back. This is the aircraft carrier Nimetz, suggest you steer 15 degrees north or we will collide. To which the response was: Sir, this is the Rocky Point Lighthouse, suggest you change direction.

In many instances, too many of our corporations are like that aircraft carrier, with smug leadership like that Admiral. If we don't change directions, I think we are all heading for the rocks. But I have faith and confidence that we will make the necessary course corrections.

11. Cultivating a Suitable Environment for Workplace Restructuring

Anthony Sarmiento, Assistant Director
AFL-CIO Education Department

I would like to thank the AFL-CIO Human Resources Development Institute (HRDI), especially Executive Director Mike McMillan, for inviting me to be a part of this conference. I'm a former staffperson of HRDI and I have Mike to thank for encouraging me to start working in the literacy area. It was really his guidance that led to the preparation of *Worker-Centered Learning: A Union Guide to Workplace Literacy*. This conference is another reflection of HRDI's vision, this time around high performance work systems.

What I would like to do today is spend a few minutes talking about the nature of the problem we face as a labor movement; about collective bargaining and what that might mean for us in this environment. I would also like to ask for some advice about gardening -- my lawn looks like hell right now. And finally, I'll talk a little about the role of experts.

First, let's look at the nature of the problem. Ray Marshall did a great job in identifying the eight elements of what might be called a "high performance workplace with equity and justice." We may think that this is an inevitable development, that all employers are going to eventually want to embrace the high performance model. I question whether that is true.

Let me give you one example. I have an announcement for a conference to be called: "Lifelong Education in America: Becoming a Nation of Students." In the center of this little brochure is a panel that says: FACTS. Let me read to you one of the so-called facts. "Now, more than ever, due to the accelerating pace of change and the competitive demands of a global economy, lifelong learning has become a new imperative for individual and corporate survival." Is this true? This statement contradicts the *America's Choice* report and findings by the Office of Technology Assessment (OTA). These reports agree with what the labor movement has been saying for years -- that these things are not inevitable. Our society and individual employers have a choice to make. Employers don't have to invest in workers and their skills. They can fire their current workers and hire people who have the skills; or they can retain the people they've got and continue to train them. They can de-skill the jobs or up-skill the jobs. They can rely upon temporary workers or they can have a more secure workforce. Many of these choices help corporations become flexible or more competitive in today's economy -- but only in the short run. In the long-run, the entire society takes a beating if companies, unions and government leaders choose the low wage, low skill path.

Is there evidence that indicates we are taking a low-skill, low-wage path? There are a couple of things. One is the growth of the contingent workforce. One of the fastest growing segments of the labor force are part-time workers who want to work full-time. There are five million people in that status. There are also a million workers working two or more part-time jobs. That suggests to me that we do not have a lot of employers who have embraced the high skill path.

Another pattern: pension and retirement coverage for workers has continued to deteriorate. Studies by the Social Security Administration and the Bureau of Labor Statistics indicate that fewer workers are being covered by any kind of retirement plan. The same trend is true in health care coverage: fewer workers are being covered and the plans are deteriorating.

Let's look at the area I have been focusing on recently: a national grant program operated by the U.S. Department of Education, the workplace literacy grant program. When the program started in 1988 there were more than 400 applications from businesses, educational institutions and unions. Grants ranged from \$200,000 to \$400,000. In the most recent competition, the number of applications had dipped below 300. We are going in the wrong direction. If employers were placing a higher priority on skill development, one would think that there would be more interest in getting this federal money. This trend also raises deeper questions: maybe bucks alone are not sufficient incentives for employers to commit themselves to re-structure the workplace and build in more skilled training.

We cannot count on market forces, demographic changes, high technology or the global economy to compel employers to do the right thing -- to invest in their workers and improve jobs, working conditions and benefits. Cost cutting and short-term thinking is alive and well in the corporate sector of our economy. Our task -- whether we come from the labor movement, the educational community or from government -- is to make sure that the right questions are asked. This is not a "skills gap" problem. We have to talk about creating public policies that will reward employers and unions to take the long-term, high skill path.

This is where the role of the labor movement is crucial. Labor's role has always been to compel employers to change, to treat their workers with more respect and dignity. Exactly how do we do this? Let me talk about a couple of other things that might get us closer to that.

When we move beyond or below the massive public policy change that is needed, how do we translate the key elements of a "high performance work and learning system" into a collective bargaining agenda for unions at the shop floor or office level? How does the union implement this agenda through its structure of stewards and officers? Many of the key characteristics that Ray Marshall identified with new work systems are part of the historic agenda items of unions, both in the past and the present. Most importantly, workers need an independent source of power through union organization. Positive incentives include decent pay and benefits as well as seniority provisions, job security and equal access to training.

The content of training, especially in the construction industry, has also been subject to collective bargaining. In the construction trades there has always been pressure by the contractors to narrow and shorten training. It is always the union that says "no" and insists that workers obtain broad training so they are able to work with different contractors and, for the most part, supervise themselves on the job.

In effect, the key elements of new work systems are already part of many unions' agendas at the collective bargaining table. It is therefore possible that our experience at collective bargaining also provides clues about strategy to restructure workplace. For example: how many unions go to the collective bargaining table with just one agenda item? We have always recognized that these workplace issues are inter-related. Whatever we achieve in one area, we knew would have an effect in others.

There is no single cookbook or model for achieving a high performance workplace with equity and justice -- just like there's no single ideal collective bargaining agreement for all unions or all industries. Sure, we can look at what other unions have done with their contracts, but the final call has to be made by that local union and international union leadership. Plans have to be set for situations that extend beyond that particular set of circumstances. We need to realize that we are doing pioneering work here. We can't just copy what others have done.

* * *

Let's talk about gardening a little bit. I'm the son of a rice farmer who joined General Douglas MacArthur's army in the Philippines. I grew up in Washington, D.C. I've been struggling to grow things in my front yard and back yard, and in the process I've been reading various publications on gardening. How do you create a decent front lawn or a decent tomato patch? What are the things that you monitor to make sure that plants grow? It has been a very hot and dry summer in Washington. Of course, healthy plants need adequate water ... and fertilizer ... and seed to get the whole process started. The type of soil is also important.

As I tried to turn things from brown to green, I came across a wonderful book on gardening. It says that a plant's basic requirements for growth are air, water, nutrients, and suitable environment. Suitable environment includes proper temperature, proper light, and protection of the plant's leaves and roots. I think there are parallels to what we are trying to develop in a high performance workplace -- what a union needs to monitor as it carries out its strategy to preserve and protect the rights of its members. There are certain elements that we are always going to be monitoring. For the air, I would say you need decent pay and benefits; for the water, you need respect and dignity; for nutrients, it's the tools and the training.

But the suitable environment is really key. We can't stop at just designing state-of-the-art education and training programs. It doesn't make any sense to have an excellent

training programs if workers go back to their jobs and don't have a hospitable environment that supports continued learning and rewards their personal growth in the exercise of new skills. For me, a suitable environment for workplace learning includes a career ladder and access to information. As for protecting the leaves and roots, to me that says that we're not going to get anywhere unless workers have some sense of employment security.

At many conferences you hear about training in the military. As I said, I'm the son of an army captain. While my father was visiting recently, I took a look at his military training file. It has every certificate for every training course he took during his 33 years of service. To me that said a couple of things. When training is available in the military, it's probably pretty good training, because it's focused on applying knowledge. In addition, he knew that there was a definite career ladder. The more training courses he took, the more skills he was able to accumulate. And the more skills he got, the more likely he was to rise up and get promoted. The son of the captain would not be able to beat him out for the lieutenant's job if he weren't also coming up through the same path that my father was.

There was also employment security. My father didn't have to worry about being laid off from the service until his enlistment was up. So the military provides an interesting and useful example. It not only combines applied learning with so-called theoretical learning, but cultivates a supportive environment that encourages its soldiers, its learners, to want to learn and add to their skills. Then it rewards them for their efforts.

* * *

Finally, let me spend a few minutes talking about the role of experts. Like many of you, I'm more of a generalist than a specialist. About fifteen years ago, I was laid off from my job with the city government. (I shouldn't have been surprised, considering that I took a job with the Mayor's Office of Bicentennial Programs.) When that job ended, I still had little idea what to do with my life. I had taken different courses in college and worked a variety of jobs.

As a generalist, I could only think of two career options: sales or politics. To me they were both equally unappealing choices. Then I found another option, to work in the labor movement. I think that the generalists' approach to the world is becoming more and more relevant in our society. The issue of workplace change, for example, cuts across many specialities. We are dealing with a wide range of membership needs, a great diversity of occupations and industries, personalities and cultures. Over the years I've found that being a generalist prepares you better to grapple with a wide array of issues and approaches. When it comes to changing both the workplace and the societal environment, reading about and being able to learn from experiences in the real world are just as important as abstract book learning.

But the pace of change among many of our employers is fierce. The research literature cannot keep up. As trade unionists know all too well, each situation is different, each with a specific history of labor management relations. We are in the plants and offices and

understand that history, so we will know what needs to be done and how to get there. As trade unionists, we have learned from day to day experience not to defer to experts.

Who are these experts anyway? And why have they been designated experts? For the most part they are people with credentials who have spent long years in a Taylorized educational system which promotes narrow specialization and discourages broad knowledge that cuts across many fields. American business leaders took the ideas of scientific management and imposed them upon educational institutions. Unions resisted this narrow specialization and now the American Federation of Teachers (AFT) is saying, look, we've got to throw out the factory model from our schools. But often we are working with experts who have this dangerous tendency of looking at a problem from a very narrow perspective.

So, as union leaders and staff, how do we develop a strategy to promote a high performance workplace? How do the experts fit in? I would suggest that we use experts in the same way that we employ attorneys and accountants. As elected leaders develop strategies, they draw upon expert advice. But when it comes down to the decisions on how to implement the strategies, it has to be our call.

A recent publication by the American Society for Training and Development (ASTD) is called: "Put Quality to Work: Train America's Workforce." It seems to recognize the importance of the labor movement in providing education and training for workers, especially front line workers. On the second last page, the pamphlet includes this paragraph:

American unions have led the way in delivering health care, pensions, and family services to the nation's workers. Unions are fast becoming leaders in providing career-related training to individual employees. Training programs jointly administered by unions and management now spend more than \$300 million per year and represent the fastest-growing segment in the nation's learning system.

I wish I could report that this really does reflect the way ASTD characterizes the role of the labor movement. A longer report, with a very similar cover, called "America and the New Economy," was released in May 1991. It does not even mention unions in these terms. The paragraph above was deleted from this more extensive report. To have a high performance workplace, workers need an independent source of power. And that means a strong union at the worksite.

Let me close by getting back to the policy level. Unions are one of the few voices, if not the only voice with influence at the national level, that consistently raises the questions of equity and justice rather than just economic productivity and competitiveness. Organized labor has the vision, not only of a just and equitable workplace, but also of a just and equitable society. That vision is critical for our nation to deal with its monumental problems.

12. Where Do We Go From Here? An Agenda for Organized Labor

**James Murry, Executive Director
Institute for Career Development**

Where do we go from here? First, we should look at this conference in perspective. I have spent my entire working life in the labor movement, serving 25 years as the executive officer of the Montana State AFL-CIO. So I've been coming to conferences for most of my adult life. Addressing the interrelated issues of high performance work organizations and skill training systems in a forum like this -- with a number of international unions along with people from academia, government and business -- is really something new. I believe we are making history here. On the work reorganization issue we really do not have extensive experience to draw upon. So let us hope that this meeting is the beginning of many similar positive endeavors in the future.

HRDI Executive Director Mike McMillan outlined the purpose of this conference as the promotion of dialogue -- to examine the subject of high performance work and learning systems from a worker-centered and union-oriented point of view. This conference has certainly accomplished that goal. But what happens after this event?

There have been several important threads of agreement evident during the conference. We need more forums of this kind, more gatherings where we can share experiences across international unions, across industry boundaries and geographical areas, to help provide direction to the labor movement on these critical issues. We recognize that the workplace and the nature of work is changing, and these changes are having a dramatic effect on union members and the entire workforce. We need to share our experiences with other joint programs and leaders involved with the reorganization of work.

There also seems to be agreement that there is a definite need for institutional change on the part of both unions and employers. Perhaps those changes should be addressed together by both parties working in joint forums. As Service Employees International Union President John Sweeney related to this conference, these problems have become a major priority of his union in recent years. Many other unions are moving in a similar direction. For example, the Institute for Career Development, with which I am associated, is a joint program between the United Steelworkers of America and six major steel companies. There is intensive activity in other sectors as well, including the auto industry, telecommunications, and the public sector.

It is clear that the main resources being devoted to the development of high performance work and learning systems are coming from the private sector. As trade unionists we

have some difficulty with this situation. We believe that government, especially the federal government, should be playing a much greater role. And it remains to be seen what role government agencies will play in the future.

There appears to be a consensus that international unions and the labor movement should be developing unified approaches and explicit policies on high performance work and learning systems in order to provide guidance to local activities.

Another unusual aspect of this conference was the amount of time that was set aside for small group discussions. We have had an exchange between trade unionists, educators, all levels of government -- and the inclusion of management representatives has contributed immensely to expanding the dimension of discussions during the conference. We appreciate the work that all of the small group leaders have done on behalf of conference participants. This was an excellent event and I would like to thank Alan Kistler and Mike McMillan for bringing us all together for what has been a fruitful and interesting exchange of views.

Epilogue: Acknowledgments and Insights of Small Group Discussions

More than 120 persons attended the September 26-27, 1991, Conference on High Performance Work and Learning Systems, including local labor leaders, international union staff and representatives from a number of institutions: public interest groups, community organizations, colleges, industry associations, private industry councils, state and federal government agencies, joint labor-management committees, labor education centers, individual companies and foundations. To foster discussion and exchange of experience, the AFL-CIO Human Resources Development Institute (HRDI) divided attendees into five diverse small groups, each of which met twice over a day and a half. Each session was guided by a group leader, a professional facilitator and a staff recorder. Special thanks goes to the following group leaders:

- Marvin Hrubes, United Food and Commercial Workers International Union (UFCW)
- Phil Neuenfeldt, Wisconsin State AFL-CIO
- Edna Primrose, International Union of Operating Engineers
- Terry Rosen, American Federation of State, County and Municipal Employees (AFSCME)
- Ray Scannell, Bakery, Confectionery and Tobacco Workers International Union.

The discussion sessions functioned smoothly because of the expertise of a capable group of facilitators: Susan Bannan, Ed Cohen-Rosenthal, Elaine Davis-Nickens, Joseph Kilgallon, and Eric Rice. On hand to document the insights, and work with group leaders in their final presentations, were five staff recorders: Lynn Cairnes, Glen Cole, Patty Garcia, Ann Kay and Jim Templeton.

At the conclusion of the conference, Jim Murry of the Institute for Career Development chaired a panel in which each small group leader reported on the content of their discussions. A central theme emerged: continued skepticism of the long-term commitment of managers and company officials towards "high performance work systems" and the worker empowerment that fuels such new work arrangements. Participants recognized that new work systems often arise out of crisis, but questioned whether managers would continue to pursue such systems once the crisis subsided. One group leader cited a horror story in which a company began to implement new work systems; pushed them heavily among both line supervisors and workers; and then backed off for unknown reasons and attempted to reimpose the status quo. During an era in which so many companies are conducting massive layoffs -- or moving their facilities to Mexico or other low wage

countries -- it is very difficult to establish the trust and mutual commitment required to successfully reorganize the way work is performed at the plant- or office-floor level.

Faced with these difficult circumstances, group leaders reported, participants agreed that both union and management attitudes need to undergo substantial change. Managers should avoid dictating to union leaders the areas in which they can be involved in joint planning. Rather, company officials need to be open to union input into a wide range of strategic decisions and be willing to share the fruits and positive results of restructuring. For many participants, the future of new work systems came down to whether firms truly accept unions as an important and legitimate part of the organization. Too many business leaders accept the first seven parts of Ray Marshall's "eight key elements," but do not believe in the last: that workers need an "independent source of power" to effectively participate in new work systems and insure that their interests are reflected in the change process.

For the union's part, group leaders reported a rough consensus that unions need to take a close look at their own organizations and make changes that enable them to take an aggressive and proactive role in workplace transformation. Unions need to develop unified policies and distinctive worker-centered approaches. Such positions will then provide a solid foundation for negotiating with management on the precise character of the new work systems and how union members will benefit. One group discussed how unions should move towards an "organizing model" in which members are trained to solve their own problems on an hour-by-hour basis rather than waiting for the union to intervene. Another group advocated a "self-designing" process in which the union provides training in group dynamics and continuously explores what members really want out of new work systems. What motivates workers to become committed to work restructuring? This questions needs to be uppermost in our minds, small group participants declared.

A second theme related to the "big picture." High performance work systems cannot survive and prosper if other aspects of American society, especially the prevailing industrial relations climate, are hostile. Widespread unemployment and major layoffs at highly visible companies create pervasive anxiety that tends to inhibit the spread of new work systems. "When we came to the very end," commented Terry Rosen of AFSCME, "we were reminded that we really are talking about a very radical change. The consensus of the group was that such a radical change is not going to work if it is imposed on a society, a government, an entire environment, that is business as usual. You can't have this as one radical part when everything else is business as usual."

Even the terminology is up for grabs, several group leaders contended. The term "high performance" sounds too much like speed up on the assembly line -- too oriented towards the traditional bottom line of higher profits and increased productivity. The emphasis should be on "healthy" high performance workplaces or, in the words of Ray Marshall, how the United States can become a "high wage, full employment country with equity and justice."

Finally, the groups identified several specific actions that need to be pursued in the years ahead. First, the pilot project approach should be maintained and expanded so that models can emerge from those situations in which labor and management have an ongoing, mutually respectful, effective working relationship. Second, a national clearinghouse of best practice case studies needs to be established so that small companies and local unions have access to previous experience and the tools to customize new work and learning systems to their specific requirements.

The September 1991 conference represented a unique opportunity for trade unionists and policy-makers from many sectors to gather and engage in a wide-ranging discussion of the interrelated areas of work organization, continuous learning, and joint union-management training programs. It was guided by the vision and leadership of HRDI President Alan Kistler and Executive Director Michael G. McMillan. The HRDI staff members named in the participant list all contributed to making the event a success. Special thanks goes to HRDI Executive Assistant Jane McDonald-Pines whose judgment and political acumen facilitated the planning process; Ken DeBey, who operated the tape recorder during the entire event; and Emily Silver, whose superb organizational talents kept the paperwork untangled and the communication lines open. Funding for the conference was provided by the Employment and Training Administration, U.S. Department of Labor, through its Office of Work-Based Learning headed by Administrator James Van Erden.

Appendix A: About the Authors

Eileen Appelbaum is Associate Research Director of the Economic Policy Institute in Washington, D.C. She received her Ph.D. in economics from the University of Pennsylvania. Formerly she was Professor of Economics at Temple University and has been a Guest Research Fellow in the Labor Markets and Employment section of the Wissenschaftszentrum in Berlin. She has acted as a consultant to the Office of Technology Assessment on several studies relating to office automation and the service sector. She has published numerous articles on the labor market experiences of women and the expansion of contingent work arrangements, and is the author of, among other publications, *Back to Work* (1981).

Paul F. Cole holds the second highest office in the New York State labor movement: Secretary-Treasurer of the 2.3 million member New York State AFL-CIO. He has been a Vice President of the American Federation of Teachers (AFT) since 1974 and serves as chair of the AFT's Standing Committee on Vocational Education. He holds a B.A. in Political Science from Marquette University and a Masters of Science degree from Canisius College. He is a member of the Cornell University Board of Trustees and was appointed by the U.S. Secretary of Labor to the Secretary's Commission on Achieving Necessary Skills (SCANS). He is the author of *The New American Worker* (1989).

Dr. Carol J. Haddad is a Research Fellow in the College of Urban, Labor and Metropolitan Affairs at Wayne State University in Detroit and President of Strategic Technology Education Partners (STEP), a research and consulting firm specializing in the areas of technological change and training. She holds a Ph.D. in adult education from the University of Michigan and an M.S. degree in labor studies from the University of Massachusetts. Dr. Haddad served as a tenured Professor of Labor Studies at Michigan State University from 1978 to 1990, and has held senior positions with American Society for Training and Development (ASTD) and the Industrial Technology Institute. She has studied the impact of new technology on job content in a number of countries, and has delivered training and technical assistance to unions and labor-management committees on this subject for more than a decade.

Alan Kistler is President of the Human Resources Development Institute (HRDI), the employment and training arm of the AFL-CIO, having served in that capacity since 1974. He was Director of the AFL-CIO Department of Organization and Field Services from 1973 to 1986 and has been a union member and civic activist since 1939. He serves on the Board of Directors of the Manpower Demonstration Research

Corporation in New York City and received his Masters Degree in Labor Relations and in Education from the University of Chicago.

Daniel Marschall is Coordinator of Special Programs for the AFL-CIO Human Resources Development Institute and lead staff for the Upgrading and Career Ladder Program. Prior to joining HRDI in 1988, he served as Planning Coordinator for the Dislocated Worker Program of the State of Ohio, and Research Director for the Cleveland Division of Economic Development. He has a degree in Urban Studies from Antioch College. He is the author of "Achieving Authentic Labor Market Flexibility: A North-American Union Perspective" in *Labor In A Global Economy* (Eugene, OR: University of Oregon Books, 1991) and has written for Cornell University's *ILR Report*, the *Journal of Career Development* and other publications. He is a member of Columbus, Ohio, Cement Masons Union Local No. 536.

Dr. Ray Marshall is holder of the Audre and Bernard Rapaport Centennial Chair in Economics and Public Affairs, The University of Texas at Austin, and served as Secretary of Labor of the United States from 1977 to 1981. He earned his Ph.D. in Economics from the University of California at Berkeley. Dr. Marshall was co-chair of the Commission on the Skills of the American Workforce, which produced the influential *America's Choice* report. He is the author or co-author of 25 books, including *Unheard Voices* (New York: Basic Books, 1987), and more than 100 articles in professional journals and other publications. He sits on the boards of a number corporations, research institutes, and educational organizations.

Michael G. McMillan has been Executive Director of the AFL-CIO Human Resources Development Institute since 1985. He has served as national building trades coordinator for HRDI's national office and coordinator of building trades organizing in the Gulf Coast area for the AFL-CIO Department of Organization and Field Services. He is a life-long member of the International Association of Iron Workers and author of "Joint Training of Dislocated Workers: What Does It Take?" in *Joint Training Programs: A Union-Management Approach to Preparing Workers for the Future* (Ithaca, NY: ILR Press, 1991.)

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Appendix B: Selected Bibliography

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AFL-CIO Economic Research Department. *It Takes Jobs To End Recessions: A Program for Quick Recovery and Long-Term Growth*. February 1992.

American Federation of Labor and Congress of Industrial Organizations. "Summary of Recommendations of the AFL-CIO to Improve the Effectiveness of the Trade Adjustment Assistance (TAA) Program," February 20, 1992.

American Federation of Grain Millers. *The Grain Millers' Role in Creating Labor/Management Partnerships For New Work Systems*. Minneapolis, MN: American Federation of Grain Millers, AFL-CIO, CLC, 1991.

American Society for Training and Development. *Put Quality To Work: Train America's Workforce*. Alexandria, VA: American Society for Training and Development, 1990.

Banks, Andy and Jack Metzgar. "Participating in Management: Union Organizing on a New Terrain," *Labor Research Review* 14, Fall 1989.

Callahan, Raymond E. *Education and the Cult of Efficiency*. Chicago: The University of Chicago Press, 1962.

Cape Cod Hospital and Hospital Workers Union Local 767 SEIU. *Career Ladder Program*. Hyannis, MA: October 1990.

Cohen, Carolyn and Dr. Tom Owens. "Final Evaluation Report: HRDI/UCLP Health Care Projects," December 31, 1991.

Cohen-Rosenthal, Edward and Cynthia E. Burton. *Mutual Gains: A Guide to Union-Management Cooperation*. New York: Praeger Publishers, 1987.

Cole, Paul F. *The New American Worker*. Buffalo, NY: New York State AFL-CIO, September 1989.

Commission on the Skills of the American Workforce. *America's Choice: High Skills or Low Wages!* Rochester, NY: National Center on Education at the Economy, June 1990.

-
- Communications Workers of America Training Department. *Technological Change: Challenges and Choices*. Washington, D.C.: Communications Workers of America, 1985.
- Dertouzos, Michael L.; Richard K. Lester; and Robert M. Solow. *Made in America: Regaining the Productive Edge*. Cambridge, MA: MIT Press, 1989.
- Haddad, C. "Labor's Role in Technological Change: Past, Present and Future." In *The Worker in Transition: Technological Change*. New York: The American Society of Mechanical Engineers, 1989.
- Kochan, Thomas; Harry C. Katz; and Robert B. McKersie. *The Transformation of American Industrial Relations*. New York: Basic Books, 1986.
- Marschall, Daniel. "Upgrading America's Workforce Through Participation and Structured Work-Based Learning: UCLP Research Report," May 1990.
- Marshall, Ray. *Unheard Voices*. New York: Basic Books, 1987.
- Marshall, Ray. "Labor in a Global Economy." In Hallock, Margaret and Steven Hecker, Editors. *Labor In A Global Economy: Perspectives from the U.S. and Canada*. Eugene, OR: University of Oregon and the Labor Education and Research Center, 1991.
- McMillan, Michael G. "Joint Training of Dislocated Workers: What Does It Take?" In Ferman, Louis A.; Michele Hoyman; Joel Cutcher-Gershenfeld; and Ernest J. Savoie, Editors. *Joint Training Programs: A Union Management Approach to Preparing Workers For the Future*. Ithaca, NY: ILR Press, 1991.
- Mishel, Lawrence and Paula B. Voos, Editors. *Unions and Economic Competitiveness*. New York: M.E. Sharpe: 1992.
- Rankin, Tom. *New Forms of Work Organization: The Challenge for North American Unions*. Toronto: University of Toronto Press, 1990.
- Sarmiento, Anthony R and Ann Kay. *Worker-Centered Learning: A Union Guide to Workplace Literacy*. Washington, D.C.: AFL-CIO Human Resources Development Institute, 1990.
- Scannell, Raymond. "Adversary Participation in the Brave New Workplace: Technological Change and the Bakery, Confectionery, and Tobacco Workers' Union." [1991]
- Sorge, Arndt and Malcolm Warner. *Comparative Factory Organization: An Anglo-German Comparison of Manufacturing, Management and Manpower*. England: Gower, 1986.
-

-
- Streek, Wolfgang. "On Institutional Conditions of Diversified Quality Production." In Matzner, E. and W. Streek, Editors. *Beyond Keynesianism: The Socio-Economics of Production and Full Employment*. England: Edward Elgar, 1991.
- Sweeney, John J. and Karen Nussbaum. *Solutions for the New Work Force*. Washington, D.C.: Seven Locks Press, 1989.
- U.S. Congress, Office of Technology Assessment. *Worker Training: Competing in the New International Economy*, OTA-ITE 457. Washington, D.C.: U.S. Government Printing Office, September 1990.
- U.S. Department of Labor, Employment and Training Administration. *Work-Based Learning: Training America's Workers*. Washington, D.C.: U.S. Government Printing Office, November 1989.
- U.S. Department of Labor, The Secretary's Commission of Achieving Necessary Skills. *What Work Requires of Schools: A SCANS Report for America 2000*. Washington, D.C.: SCANS, June 1991.
- Weiler, Paul C. *Governing the Workplace: The Future of Labor and Employment Law*. Cambridge, MA: Harvard University Press, 1990.
- Williams, Lynn R. "Education and Training for the American Labor Market: A Labor Perspective." National Planning Association *Looking Ahead*, Vol. XIII, Nos. 1/2, July 1991.
- Zuboff, Shoshana. *In the Age of the Smart Machine: The Future of Work and Power*. New York: Basic Books, 1988.

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Appendix D: The Eight Key Elements of High Performance Work and Learning Systems

As Identified by Dr. Ray Marshall at
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The most successful "high performance" workplaces feature the following eight components, all functioning together as an integrated and mutually supportive system.

- Effective use of all company resources, especially the insights and experience of front-line workers, in order to achieve continuous improvements in productivity.
- Acute concern for the quality of products and services in order to satisfy the demands of a consumer-driven marketplace.
- A participative and non-authoritarian management style in which workers -- both at the point of production and at the point of customer contact -- are empowered to make significant decisions by (a) using their individual discretion, experience and creativity, and (b) cooperating with their peers in a mutually supportive atmosphere.
- Internal and external flexibility in order to: (a) rapidly adjust internal production processes to produce a variety of goods or services; and (b) accurately comprehend the external environment and adjust to changing economic and social trends.
- A positive incentive structure that includes: employment security; rewards for effectively working in groups; decent pay and working conditions; and policies that promote an appreciation for how the company functions as an integrated whole.
- Leading-edge technology deployed in a manner that extends human capabilities and builds upon the skills, knowledge and insights of personnel at all levels of the company.
- A well-trained and well-educated workforce capable of: improving a company's work organization and production processes; adapting existing machine technology and selecting new equipment; developing new and improved products or services; and engaging in continuous learning, both on-the-job and in the classroom.
- An independent source of power for workers -- a labor union and collective bargaining agreement -- that protects employee interests in the workplace; helps to equalize power relations with management; and provides mechanisms to resolve disagreements that arise because of the inherently adversarial nature of labor-management relations.